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JULY 1 1.H 32.M 12.S EPICENTRE -14.15 167.19 DEPTH= 168.KM

A=-0.94592 B= 0.21501 C=-0.24289 D= 0.2217 E= 0.9751
G= 0.2368 H=-0.0538 K=-0.9701 HT= 5.9

DEPTH OF FOCUS= 0.021R

SE= 1.25

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PORT VILA	3.72	163.2	0 58K	0	1 40	-3		
KOUMAC	6.96	203.2	1 39K	-2	2 54	-5		
NOUMEA	8.14	184.9	1 56A	0	3 26	-1		
HONIARA	8.50	302.7	2 2	1	3 38	2		
BRISBANE	18.82	223.3	4 9	0	7 36	6		
PORT MORESBY	20.18	281.3	4 24	1				
AFIAMALU	20.40	91.9	4 28	2				
CHARTERS TS.	20.85	250.6	4 31	1	8 17	9		
RIVERVIEW	24.41	213.8	5 6A	2			5 28	5 50 PP
KARAPIRO	24.82	164.1	5 9	1				
CHATEAU	26.02	165.1	5 22	3				
TUAI	26.08	162.1	5 19	-1				
CANBERRA	26.69	214.6	5 26	0				5 58
ADELAIDE	32.98	226.0	6 21K	0				
MOORLANDS	33.06	207.7	6 23	1				
TARRALEAH	33.29	208.6	6 25	1				
DARWIN	35.42	288.5	6 42	0				
MUNDARING	49.68	240.0	8 37	0				
MANILA	53.86	300.3	9 6	-2				
DUMONT	55.49	192.8	9 18	-2				
MATUSIRO	57.36	332.4	9 32	-1				
SCOTT BASE	63.71	180.1	10 15	-1				
Y.-SAKHLINSK	64.73	341.7	10 23	0				
PETROPAVLOVK	67.30	354.4	10 40A	1				
BYRD STATION	73.27	170.0	11 14	-1				
SOUTH POLE	75.94	180.0	11 30	0				
YAKUTSK	81.44	343.1	12 1A	1				
MAWSON	82.39	202.0	12 5K	0			12 46	
PASADENA	85.56	53.3	12 17	-4				
COLLEGE	85.79	17.6	12 22	0			12 58	
CHINA LAKE	86.57	51.9	12 24	-2				
BOULDER CITY	88.75	52.5	12 37	1				
EUREKA	89.02	48.9	12 38	1				
TIKSI	89.37	348.7	12 38K	-1	23 15	3		
PENTICTON	90.00	38.8	12 42K	0				
DUGWAY	91.55	49.0	12 49	0				
ALBUQUERQUE	95.03	55.4	13 5	0				
SHIRAZ	118.17	296.2	18 29K	2				
APATITY	118.81	341.5	18 31	2				
SODANKYLA	120.92	343.3	18 34	1				
TROMSOE	121.09	347.6	18 33	0				
KIRUNA	122.19	345.8	18 35	0				
KAJAANI	122.84	340.1	18 37	1				
PULKOVO	124.59	335.2	18 41K	1				
UMEA	125.34	342.8	18 41	0				
NURMIJARVI	126.30	338.1	18 44K	1				
HELSINKI	126.42	337.6	18 44	1				
SKALSTUGAN	127.61	346.1	18 46	0				
UPPSALA	129.19	340.7	18 50	1				
KSARA	131.89	302.9	18 37	-17				22 10 PKS
UZHGOROD	135.09	327.3	19 2	2				
COLLMBERG	137.50	336.1	19 6	2				22 27 SKP
PRUHONICE	137.88	333.7	19 6	1				22 28
JENA	138.35	336.9	19 3	-3				22 30 PP
KASPERSKE H.	138.93	333.6	19 8	1				22 31 SKP
STUTTGART	140.97	336.7	19 8	-3				22 36 PP
FOLINIERE	144.01	346.1	19 16	0				
GARCHY	144.41	341.3	19 17	0				22 45 PP
ISOLA	145.60	334.4	19 22	3				
TOLEDO	153.24	344.9	19 33	3			19 42	19 54 PKP2

JULY 1 21.H 23.M 46.S EPICENTRE 39.82 75.25 DEPTH= 61.KM

A= 0.19609 B= 0.74485 C= 0.63776 D= 0.9671 E=-0.2546
G= 0.1624 H= 0.6167 K=-0.7702 HT= -1.6

DEPTH OF FOCUS= 0.004R

SE= 2.85

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ANDIJAN	2.39	293.9	0 39A	1	1 13	7		
FERGANA	2.72	283.1	0 42	-1	1 18	3		
NAMANGAN	2.97	294.2	0 47	1				1 38 SG
FRUNSE	3.05	351.2	0 50A	3	1 30	7		
DZERGETAL	3.17	260.5	0 50	1				
FABRICHNAYA	3.43	14.6	0 54	2				
PRZHEVALSK	3.57	40.7	0 56	2				1 51 SG
ALMATA	3.68	19.7	0 58A	2				2 6 SG
KHOROG	3.73	232.5	0 59	2	1 45	5		
ALMATA-2	3.80	24.0	0 58	0				
KURMENTY	3.91	34.6	1 0	1				
GARM	3.92	259.6	0 58	-1				
CHILIK	4.44	31.3	1 7	0				2 15
OBI-GARM	4.45	257.3	1 5	-2				
KULYAP	4.70	247.7	1 9	-1				2 38
TASHKENT	4.79	290.2	1 9A	-3				2 32 SG
TCHIMKENT	4.94	302.0	1 12	-2				2 41 SG
DUZHANBE	5.19	258.2	1 16	-1	2 15	-1		
SAMARKAND	6.38	271.3	1 32	-2	2 44	-2		
WARSAK DAM	6.52	208.2	1 33K	-3				
LAHORE	8.28	185.5	1 56K	-4	3 29	-4		
SEMIPALATNSK	11.15	16.8	2 36	-3				
NEW DELHI	11.32	171.2	2 32K	-9	5 51	64		6 5 SSS
QUETTA	11.77	217.8	2 43	-4	4 50	-8		
ASHKABAD	13.30	267.3	3 10	2				
KIZYL-ARVAT	14.67	273.7	3 29	4				
CHATRA	16.32	138.9	3 40A	-6	6 31	-14		
LHASA	16.45	123.2	3 47K	-1	6 49	1		
ESEN BULAK	16.66	59.9	3 48	-3	7 5	12		
ROKAPO	18.26	147.7	4 18	7	7 10	-19		14 19
TEHERAN	19.28	265.4	4 23	1	8 3	12		
SVERDLOVSK	19.53	335.5	4 24K	-1	8 5	8		
SHILLONG	19.89	130.6	4 25A	-4	8 5	1		4 42 PP
CALCUTTA	20.52	143.2	5 7	31	8 22	5		9 15
BOMBAY	20.95	186.4	4 40	0	8 36	11		11 4
MAKHACH-KALA	21.02	287.7	4 45	4	8 34	8		
SHIRAZ	21.20	248.4	4 42	0	8 37	7		5 42
POONA	21.25	183.7	4 43K	0	8 40	10		10 56
LANCHOW	22.81	90.4	5 0	2	9 8	9		
TIFLIS	23.09	284.6	5 2	1	9 13	9		
VISHAKHAPTNM	23.10	160.1	5 13	12	9 12	8		11 1
IRKUTSK	23.53	48.4	5 6A	1				
ULAN-BATOR	24.08	59.9	5 13	2	9 29	8		
CHENGTU	25.12	102.4	5 18	-3	9 43	5		
PAOTOW	26.48	77.0	5 34	1	10 5	4		
KUNMING	27.30	114.2	5 43	2	10 22	8		
SIAN	27.34	91.0			10 19	4		
MOSCOW	29.42	315.3	5 58A	-2				7 11 PPP
SIMFEROPOL	30.57	293.3	6 9	-1	11 11	5		12 47 PCS
AMDERMA	30.87	350.8	6 11	-2				
PEKING	31.19	76.2	6 15	-1				
KSARA	31.89	271.8	6 24	2	11 38	11		
KISHINEV	34.07	297.8			12 8	7		
PULKOVO	34.31	320.7	6 41	-2	12 11	6		
NANKING	35.80	88.6			12 33	5		
APATITY	35.97	334.2	6 57	0	12 33	3		
KAJAANI	36.74	327.2	7 2	-1				8 25 PP
LWOW	37.03	303.0	7 11	5	12 51	5		
NURMIJARVI	37.23	320.8	7 7K	0				18 35
ZO-SE	38.06	88.6			13 9	7		
SODANKYLA	38.27	332.0	7 15K	-1				
UZHGOROD	38.27	301.3	7 17	1				
WARSAW	38.76	307.1			13 15	2		16 1 SS
YAKUTSK	39.33	37.3	7 23A	-2	13 24	3		
KRAKOW	39.64	303.8	7 27	0	13 30	4		9 5 PP
UMEA	39.87	325.5	7 29	0				
UPPSALA	40.65	319.1	7 35A	-1	14 13	32		9 12 PP
KIRUNA	40.67	331.6	7 35A	-1				9 18 PP
PACIPORZ	40.74	304.1						9 19 PP

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KHEYS	41.42	355.8	7	42A	0	13	57	5	9	18	PP
TIKSI	41.43	22.7	7	42A	0	13	56	3	9	16	PP
TROMSOE	41.67	334.0	7	43	-1						
KARLSKRONA	41.73	313.5	7	43	-2						
PRATISLAVA	41.77	301.4	8	23	38				9	29	PP
PRUHONICE	43.08	304.5	7	56	0						
PRAGUE	43.14	304.6	7	56	0						
SKALSTUGAN	43.37	324.5	7	57	-1						
COPENHAGEN	43.53	313.0	7	56	-3	14	24	1			
GOTEBORG	43.61	316.0	7	57	-3						
COLLMBERG	43.82	306.6	8	1A	-1				9	46	PP
KASPERSKE H.	43.87	303.4	8	2	0				9	51	PP
LJUBLJANA	43.95	298.9	8	3A	0				8	30	
TRIESTE	44.57	298.6	8	16	8						
ADDIS ABABA	44.67	236.7	8	11A	3						
JENA	44.77	306.3	8	8	-1	14	38	-3	10	8	PPP
MESSINA	45.66	288.0							14	59	
ROME	46.57	293.9							15	12	
STUTTGART	46.71	303.9	8	25	0	15	27	18	18	55	SS
FLORENCE X.	46.82	296.8							11	18	
STRASBOURG	47.72	304.0	8	32	-1				11	5	PPP
MATUSIRO	48.69	72.7	8	38	-2	15	40	3			
DOURBES	49.29	306.7	8	45	0				19	25	SS
ROSELEND	49.33	300.6	8	45	0						
GARCHY	51.13	303.6	9	6	7						
ABERDEEN	51.19	317.0							23	22	
FOLINIERE	52.86	306.4	9	10	-2						
TOLEDO	58.85	297.9	9	54K	-1				24	24	SSS
BENI ABBES	62.38	287.4	10	17	-2				10	57	PCP
MOULD BAY	63.86	3.9	10	26A	-2						
BROKEN HILL	69.34	229.0	11	3K	0						
COLLEGE	70.34	18.0	11	8	-1						
BULAWAYO	73.82	225.3	11	30	0						
M.BOUR	82.62	282.5							17	15	
CHARTERS TS.	88.98	117.3							12	50	
PALISADES	94.80	337.1				23	49	-33			
WICHITA MTS.	105.62	354.7				24	47	9	27	49	PS

JULY 2 8.H 32.M 42.S EPICENTRE -10.58 165.99 DEPTH= 98.KM

A=-0.95399 B= 0.23802 C=-0.18235 D= 0.2421 E= 0.9703
G= 0.1769 H=-0.0441 K=-0.9832 HT= 6.5

DEPTH OF FOCUS= 0.010R

SE= 2.13

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
HONIARA	6.06	280.3	1	30K	2	2	36	-1					
PORT VILA	7.46	162.6	1	46A	-2	3	5	-6					
KOUMAC	10.06	189.2	2	21K	-2	4	10	-4					
NOUMEA	11.67	177.9	2	47K	3	4	55	2					
SUVA	14.20	123.4	3	13	-4	6	13	20					
RABAUL	15.09	293.8	3	30	1								
PORT MORESBY	18.59	271.9	4	11K	-1	7	36	4					
BRISBANE	20.84	214.8	4	35	0	8	21	4					
CHARTERS TS.	21.23	241.2	4	40K	1	8	32	8					
ONERAHI	26.21	164.4	5	30	3								
RIVERVIEW	26.85	208.2	5	33A	0	9	58	-2			6	19	PP
KARAPIRO	28.56	164.1	5	46A	-2						12	29	PCS
CANBERRA	29.08	209.4	5	52A	-1	10	37	1			6	46	PP
TARATA	29.46	166.7	5	56	0								
CHATEAU	29.75	164.9	5	58	-1	10	53	6					
TUAI	29.82	162.3	5	57A	-3	10	46	-2			6	38	
COBB RIVER	30.96	170.1	6	11	1	11	6	0					
WELLINGTON	31.55	167.3	6	15	0	11	9	-6					
KAIMATA	32.17	172.5	6	26	6	11	25	0					
MELBOURNE	33.06	211.4	6	28	0	11	38	0			7	11	
GEBBIES PASS	33.50	171.2	6	30	-2	11	41	-4					
DARWIN	34.49	263.5	6	53	13						9	15	
ADELAIDE	34.74	221.3	6	41A	-1	12	4	0			16	56	SCS
ROXBURGH	34.90	175.9				12	4	-3			8	12	
TARRALEAH	35.93	205.0	6	53	1						8	18	
HONOLULU	47.41	48.0	8	26	0								
KIPAPA	47.54	47.9	8	28	1								

HAWAII V.OB.	48.43	52.1	8	24	-10						16	5
MUNDARING	50.53	237.2	8	49	-1							
PERTH	50.84	237.3	8	56	4	16	4	5			10	48 PP
MANILA	51.09	298.6	8	54	0	15	54	-9				
BAGUIO CITY	52.32	300.3	9	4	1	16	22	2				
TOKUBASAN	52.55	333.6	9	4A	-1	16	25	2	9	14	11	51 PPP
MATUSIRO	53.67	332.2	9	12	-1	16	39	1				
LEMPANG	57.75	268.6	9	41A	-2	17	34	2				
DUMONT	58.71	191.8	9	47	-2	17	38	-7	10	14		
ZO-SE	59.69	315.6	9	55A	-1	18	0	3	10	21		
HONG KONG	60.39	303.1	10	1	0	18	10	4			10	25 PCP
NHATRANG	60.77	290.4	10	4	0							
Y.-SAKHLINSK	60.99	342.0	10	4A	-1	18	16	2			12	16 PP
CANTON	61.43	303.5	10	8A	0	18	24	4	10	34		
CAPE HALLETT	61.74	178.5	10	8	-2							
VLADIVOSTOK	61.83	332.3	10	11	0							
PETROPAVLOVK	63.65	355.1	10	22A	-1	18	50	3	10	47	12	56 PP
CHANGCHUN	65.56	328.8	10	33	-2	19	13	2	10	59	19	59 *SS
WILKES	66.94	201.2	10	41A	-3	19	26	-1	11	6	23	24 SS
SCOTT BASE	67.26	179.8	10	44	-2	19	34	3				
PEKING	68.27	320.8	10	51	-1	19	46	3	11	18	20	28 *SS
SIAN	70.09	312.3	11	3A	0	20	11	6	11	29		
MAGADAN	70.95	351.9	11	8	0	20	16	1			21	3 SCS
KUNMING	71.08	301.2	11	11A	2	20	22	6	11	37	21	8 *SS
CHENGTU	72.21	307.0	11	16A	0	20	30	1	11	42		
PAOTOW	72.48	318.6	11	18A	1	20	38	6	11	44	11	59 *SP
MIRNY	73.61	203.5	11	23	-1	20	46	1	11	48	21	30 *SS
LANCHOW	74.62	312.0	11	30A	0	21	0	4	11	56	21	48 *SS
BYRD STATION	76.97	170.1	11	41	-2	21	24	2	12	8		
YAKUTSK	77.70	343.4	11	47A	0	21	23	-7	12	14	14	53 PP
ULAN-BATOR	78.18	323.9	11	51A	1	21	39	4				
SOUTH POLE	79.49	180.0	12	6	9							
SHILLONG	80.52	298.3	12	3	0	22	3	3			15	7 PP
IRKUTSK	81.79	326.9	12	8A	-1	22	14	1	12	34		
LHASA	82.38	302.0	12	14A	2	22	24	5	12	41	23	9 *SS
BERKELEY	82.40	49.3	12	13A	1	22	26	7	12	30		
LICK	82.69	50.0	12	14A	0							
SITKA	82.73	28.1	12	13	-1							
COLLEGE	82.77	18.1	12	13	-1						15	36 PP
CALCUTTA	82.79	294.5									22	25
PRIEST	83.05	51.4	12	17	1							
MINERAL	83.71	47.1	12	19A	0							
ESEN BULAK	84.03	319.2	12	19A	-2	22	34	-1				
PASADENA	84.40	53.9	12	22	0	22	36	-3			23	29 PS
RENO	84.76	48.3	12	25	1							
ALBERNI	84.78	37.9	12	24	0							
CHATRA	84.92	298.3	12	26A	1							
MAWSON	85.24	202.0	12	26A	-1						12	37 *SP
VICTORIA	85.35	39.0	12	26	-1							
TIKSI	85.66	348.9	12	28A	-1	22	54	3	12	56	23	37 *SS
SEATTLE	85.74	40.1	12	30	1							
BOULDER CITY	87.53	52.9	12	38	0							
EUREKA	87.58	49.3	12	38	0						16	3 PP
PENTICTON	87.98	39.1	12	40A	0							
MADRAS	88.32	283.5	12	42A	1	23	9	-7			24	8 PS
TUCSON	89.88	57.3	12	53	4						16	28 PP
TUCSON TELE.	89.99	57.2	12	54	5						16	27 PP
DUGWAY	90.12	49.2	12	50A	0	23	58	25				
GLEN CANYON	90.30	52.6	12	51	0							
SALT LAKE C.	90.96	48.8	12	55	1						13	57
BANFF	91.03	38.1	12	53	-1							
PRICE	91.48	50.1	12	57	1							
BUTTE	91.65	43.6	12	56	-1							
BOZEMAN	92.61	44.2	13	2	1							
FLAMING GRGE	92.82	49.0	13	2	0							
NEW DELHI	93.93	298.2	13	4A	-3						25	58
ALBUQUERQUE	93.98	55.4	13	8	0						16	49 PP
SEMIPALATNSK	95.36	320.1	13	12	-2							
BOMBAY	96.33	288.0									23	44
MOULD BAY	96.59	13.4	13	19	-1							
FRUNSE	98.10	312.0	13	27	1	23	58	4			26	13 PS
WARSAK DAM	99.48	302.9	13	32	-1							
KHOROG	99.86	306.4							14	2		
WICHITA MTS.	100.36	56.5	13	37	0	24	9	4			17	43 PP
TASHKENT	101.92	310.1	13	43	-1	24	15	2			28	16
MANHATTEN	102.33	52.1	13	47	2	24	14	-1				
TULSA	102.74	55.5									18	0 PP
KHEYS	103.27	350.8	13	48	-2						18	2 PP

LAWRENCE	103.35	52.4	18	5	255				24	26	
FAYETTEVILLE	104.05	55.4	18	8	255						
AMDERMA	104.80	339.6	13	54	-2						
FLORISSANT	107.16	52.6	14	6	777						
SVERDLOVSK	107.19	326.3	14	4	777	24	39	3	18	41	PP
ST. LOUIS 1	107.27	52.8	14	9	777						
ASHKABAD	110.32	306.5							19	4	PP
APATITY	115.07	341.8	14	5	-264				28	52	PS
KIRUNA	118.46	345.9	18	35	-1	27	31	130	19	48	PP
BREBEUF	118.65	43.7	18	37K	1						
CHINCHINA	118.78	90.1							20	0	PP
KAJAANI	119.10	340.4	18	38	1				19	9	
PALISADES	119.50	48.8	18	40	2				15	3	P
MOSCOW	119.71	329.3							19	58	PP
TIFLIS	120.14	312.2	18	41	2				29	57	SKSP
BOGOTA	120.25	90.8				25	41	14	20	5	PP
UMEA	121.60	343.0	18	40	-2	27	52	141	19	12	
GRAHAMSTOWN	121.71	219.8	19	14	32						
CHANGALANE	122.05	229.9	18	44	1				19	12	
NURMIJARVI	122.57	338.5	18	44K	0				19	12	
SKALSTUGAN	123.88	346.2	18	46A	0				19	17	
PRETORIA	125.32	227.9	18	53	4						
UPPSALA	125.45	341.0	18	49A	0				20	39	PP
KIMBERLEY	125.85	222.7	18	51K	1						
SIMFEROPOL	126.47	318.9	18	52	1				20	50	PP
ADDIS ABABA	128.02	273.2	18	59K	5						
CARACAS	128.03	84.9	18	55	1				20	58	PP
BULAWAYO	128.13	234.0	18	56	1						
KSARA	128.93	305.1	18	55	-1			19 24	21	4	PP
SAN JUAN	129.09	74.9	18	57	1						
LWOW	129.83	328.7	18	58	0				21	12	PP
BROKEN HILL	131.09	240.2	19	2	2				22	20	PKS
KRAKOW	131.70	331.2							21	24	PP
RACIBORZ	132.49	332.2							21	29	PP
TRINIDAD	133.46	85.3	19	6	1				22	25	
COLLMBERG	133.78	336.7	19	6K	1				21	32	PP
BUDAPEST	133.88	329.1	19	6	1	26	12	7	21	38	PP
PRAGUE	134.15	334.7	19	6	0						
PRUHONICE	134.17	334.5	19	6	0				39	12	SS
BRATISLAVA	134.35	331.1	19	7A	1				21	40	PP
JENA	134.62	337.4	19	0	-7				21	42	PP
DURHAM	134.83	349.9	19	7A	0				21	44	PP
BELGRADE	134.84	325.4	19	9K	2				32	10	PP
KASPERSKE H.	135.23	334.4	19	0	-8				22	12	PP
ATHENS	136.58	315.3	19	11A	1				21	50	
LJUBLJANA	137.09	330.8	19	9	-2				21	57	PP
STUTTGART	137.24	337.3	19	8	-4				22	0	PP
KEW	137.72	347.3	18	56	-16						
TRIESTE	137.75	330.9	19	14	1				22	48	SKP
STRASBOURG	137.96	338.4	19	15	2				22	5	PP
PADOVA	138.81	332.2							22	51	PP
PARIS	139.47	343.2	19	18	2				22	12	
FOLINIERE	140.28	346.0	19	10	-7						
FLORENCE X.	140.34	331.0	19	21	4				23	57	PP
GARCHY	140.67	341.6	19	14	-4						
ROME	141.10	328.0	19	20	1				23	18	PP
MESSINA	141.83	321.0	19	19	-1				23	15	PP
ISOLA	141.89	335.2	19	18	-2						
CLERMONT-FD.	141.99	340.4	19	23	3				19	49	
BAGNERES	145.36	341.6	19	25	-1						
LUANDA	146.73	235.5	19	34K	6				20	4	
TORTOSA	147.26	339.4	19	34	5						
SERRA PILAR	149.20	352.0	19	38K	6				19	46	PKP2
TOLEDO	149.50	344.8	19	35	2	26	58	29	22	36	PP
ALICANTE	149.80	338.5	19	46	13				23	13	PP
PONTA DELGDA	151.00	19.3	19	37	2				19	52	PKP2
ALMERIA	151.84	340.1	19	39A	3				20	16	
GRANADA	151.90	342.2	19	49	13				23	58	PP
MALAGA	152.56	343.1	19	38	1	26	42	9	23	26	PP
BENI ABBES	157.65	332.2	19	46	2				23	59	PP
M.POUR	175.24	37.1	19	59	1				25	24	PP

JULY 3 18.H 13.M 33.S EPICENTRE -56.37-142.72 DEPTH= 0.KM

A=-0.44267 B=-0.33700 C=-0.83095 D=-0.6057 E= 0.7957
G= 0.6612 H= 0.5033 K=-0.5563 HT= -7.7

SE= 3.59

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
BYRD STATION	24.85	170.6	5 24	-1	9 56	10		
CAPE HALLETT	24.90	212.1	5 27	1				
SCOTT BASE	27.50	200.7	5 51	1				14 55
WELLINGTON	31.22	280.7						11 49
TUAI	31.69	286.5	6 37	10				
CHATEAU	32.26	284.3	6 31	-1				
KARAPIRO	33.19	285.9	6 40	0				
SOUTH POLE	33.80	180.0	5 44	-62				15 32
DUMONT	35.80	221.6	7 1	-2				15 13
ARGENTINE I.	36.81	136.5	7 9	-2				
WILKES	45.93	212.5			15 16	5		
RIVERVIEW	49.62	267.9	8 59A	4	16 10	7		
CANBERRA	49.71	264.8	9 4	8				
NOUMEA	50.29	291.0	8 55	-5				
MIRNY	50.50	205.4	9 3	1				
SANTA LUCIA	53.21	96.5	9 19	-3	16 51	-1		12 5 PP
BRISBANE	53.62	274.5	9 23	-2	16 58	0		
MAWSON	54.89	191.7	9 31A	-3			9 36	11 29 PP
CHARTERS TS.	63.01	274.1	10 31	0				19 37
HONIARA	64.43	293.0	10 37	-3				
AREQUIPA	66.06	83.7	10 49	-2				
LA PAZ	67.89	86.6	11 1	-1				
MUNDARING	69.69	242.8	11 9	-4				
PERTH	69.90	242.5						20 59
CHINCHINA	81.71	68.0	12 26	5				
BOGOTA	82.22	69.6	12 24	0				
TUCSON TELE.	92.46	26.7	13 16	2				
TRINIDAD	94.02	76.9						30 53
CHINA LAKE	94.29	20.2	13 21	-1				
EUREKA	98.15	20.6	13 41	1				17 40 PP
WICHITA MTS.	98.17	35.4	13 38	-2	25 13	55		14 13
DUGWAY	99.49	22.8						17 51
BULAWAYO	103.44	171.6						18 7
MATUSIRO	114.06	300.0						19 36 PP
HONG KONG	115.49	272.2						19 50 PP
ZO-SE	118.54	283.8						22 7 PP
PETROPAVLOVK	119.16	323.8	19 9	18				20 10 PP
COLLEGE	120.98	357.5	18 54	0				
VLADIVOSTOK	122.22	300.4			26 0	3		20 34 PP
SIAN	127.64	276.9						21 10 PP
CHENGTU	127.66	270.0						21 11 PP
PEKING	127.93	287.2	19 10	2				21 11 PP
SHILLONG	130.38	255.1	19 15	3				
PAOTOW	131.61	283.4	19 22	7				21 39 PP
LANCHOW	131.78	274.5	19 18	3				21 39 PP
LHASA	134.04	257.6	19 23	4				21 50 PP
YAKUTSK	136.18	317.1	19 26	3				22 50 SKP
NEW DELHI	140.42	242.3	19 33K	2				
TIKSI	141.55	329.4						28 2
ALEPT	144.23	12.8	19 35	-3				
LAHORE	144.27	241.7	19 39	1				
LISBON	144.84	100.1	18 42A	-57				
MALAGA	145.95	107.4	19 40K	-1				23 5 PP
COIMBRA	146.28	99.0	19 42K	1				
QUETTA	146.54	231.0	19 44	2				
GRANADA	146.72	107.7	19 44	2	27 29	40		23 23 PP
SERRA PILAR	146.83	97.6	19 44K	2				19 46 PKP2
ALMERIA	147.07	109.4	19 45K	3				23 17 PP
WARSAK DAM	147.62	240.9	19 44	1				
TOLEDO	148.45	103.8	19 48	3				23 19 PP
ALICANTE	149.23	109.7	20 0	14				25 12
SHIRAZ	151.19	208.3	19 50K	1	26 42	-15		23 49 PP
SCORESBY SD.	151.43	37.2	19 48	-1				
DUZHANBE	152.60	242.8	20 2	11				
FRUNSE	152.65	256.3	19 53	2				23 45 PP
BAGNERES	152.93	103.6	20 0	9				23 44 PP
SEMIPALATNSK	154.03	275.0	20 3	10				
TASHKENT	154.42	247.6	19 56	2				20 28 PKP2
KHEYS	154.83	352.1			27 24	25		29 9 PPP
CLERMONT-FD.	156.30	102.1						20 25

MESSINA	156.77	132.3	19	57	0	26	53	-8	24	5	PP
ASHKABAD	156.82	226.2	19	57	0						
GARCHY	157.20	99.0	20	11	14				24	21	PP
TEHERAN	157.24	210.8							20	26	
KSARA	157.42	177.0	20	2	4						
ROSELEND	158.15	106.3							42	39	SS
ROME	158.42	121.6	19	58K	-1	26	40	-23	24	39	PP
BESANCON	158.77	102.2							20	15	PKP2
FLORENCE X.	159.23	116.3	20	10	10				24	33	PP
ATHENS	159.48	148.1	20	7	7						
DOURBES	159.60	94.1	20	35	35						
STRASBOURG	160.53	101.1	20	9	8				27	39	PPP
PADOVA	160.70	113.9	20	47	46				24	37	PP
STUTTGART	161.46	102.4	20	3	1				24	32	PP
TRIESTE	161.81	116.2	20	10	8				24	33	PP
LJURLJANA	162.48	116.5	20	3	0				20	54	PKP2
JENA	163.87	98.9	20	9	5				24	43	PP
KASPERSKE H.	163.98	106.9	20	2	-3				24	43	PP
TIFLIS	164.54	201.6	20	4	-1				21	2	PKP2
COLLMBERG	164.83	99.3	20	8	3				24	48	PP
PRAGUE	164.97	105.2							20	59	
PRUHONICE	164.98	105.7	20	7	1				24	47	PP
BRATISLAVA	165.21	115.2	20	11K	5				24	49	PP
BUDAPEST	165.68	120.8							21	59	
KIRUNA	166.14	27.3							53	34	SS
GOTEBORG	166.19	74.0	20	21	14						
SVERDLOVSK	167.14	281.8	20	6	-1						
MOSCOW	179.32	197.0	20	12	0				26	10	PP

JULY 5 17.H 40.M 58.S EPICENTRE 31.06 141.89 DEPTH= 47.KM

A=-0.67523 B= 0.52956 C= 0.51345 D= 0.6171 E= 0.7869
G=-0.4040 H= 0.3169 K=-0.8581 HT= 1.5

DEPTH OF FOCUS= 0.002R

SE= 3.58

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
TORISIMA	1.49	247.4	0	23	-2	0	41	-3				
HATIDYOZIMA	2.70	319.2	0	42	0							
MERA	4.22	336.3	1	10	6							
OSIMA	4.26	330.9	0	55	-9							
AJIRO	4.62	330.2	1	8	-1	2	2	-1				
OMAESAKI	4.69	319.7	0	52	-18							
TYOSI	4.72	349.6	1	9	-2	2	2	-3				
MISIMA	4.74	329.4	1	14	3							
YOKOHAMA	4.74	337.2	1	20	9	3	15	69				
TOKYO C.M.O.	4.94	339.3	1	14	0	2	4	-7				
HONGO	4.96	339.6	1	19	5							
HAMAMATU	5.06	317.2	1	16	0							
HUNATU	5.14	330.2	1	17	0	2	12	-4				
KAKIOKA	5.35	345.0	1	17	-3							
TUKUBASAN	5.36	344.3	1	17	-3	2	16	-5				
KOHU	5.37	329.6	1	18	-2	2	22	1				
MITO	5.43	347.8	1	19	-2	2	19	-4				
TITIBU	5.44	335.1	1	20	-1							
KUMAGAYA	5.49	338.2	1	20	-2	2	22	-2				
IIDA	5.60	323.6	1	22	-1	2	32	5				
OWASE	5.66	303.4	1	24	0	3	20	51				
SIOMISAKI	5.71	296.2	1	14	-11	2	31	1				
UTUNOMIYA	5.72	343.4	1	22	-3	2	25	-5				
MAEBASI	5.82	336.9	1	32	6	2	35	2				
NAGOYA	5.82	316.0	1	8	-18						3	15
KAMEYAMA	5.92	311.1	1	30	2	3	44	69				
ONAHAMA	5.93	352.3	1	28	0	2	27	-8				
OIWAKE	5.94	332.9	1	29	1	2	38	2				
GIHU	6.09	316.6	1	30	0						4	2
MATUMOTO	6.12	328.7	1	35	5							
SHIRAKAWA	6.20	347.5	1	30	-2	2	36	-6				
MATUSIRO	6.26	331.7	1	30	-2	2	38	-6				
HIKONE	6.32	313.0	1	33	0	3	59	74				
NAGANO	6.38	332.2	1	34	0	2	54	7				
OSAKA	6.44	305.4	1	32	-3						4	10
KYOTO	6.51	308.9	1	31	-5						4	17
ABUYAMA	6.53	307.2	1	33K	-3							

KOBE	6.70	304.3	1	40	1	3	41	46			
SUMOTO	6.73	300.9	1	47	8						
TAKADA	6.74	334.3	1	42	3						
HUKUSIMA	6.77	350.4	1	40	0	2	50	-6			
TOYAMA	6.84	326.5	1	36	-5						
HUKUI	6.86	318.0	1	49	8						
NIIGATA	7.23	341.8	1	45	-1	2	39	-29			
SENDAI	7.23	353.8	1	41	-5	2	58	-10			
YAMAGATA	7.28	350.4	1	43	-4	3	1	-8			
ISINOMAKI	7.36	356.5	1	42	-6	2	59	-12			
TAKAMATU	7.37	298.2	1	47	-1						
TOYOOKA	7.41	308.8	1	47	-1						
KOTI	7.50	291.5							2	50	
WAZIMA	7.53	328.1	1	52	2						
SAKATA	8.00	348.3				3	25	-2			
MIYAKO	8.57	0.4				3	28	-13			
MATSUF	8.59	303.0	2	5	0						
MORIOKA	8.64	356.3	1	59	-6	3	30	-13			
AKITA	8.76	350.9							2	31	
OOITA	8.97	286.6	1	55	-15				5	27	
MIYAZAKI	8.99	278.2	1	49	-21						
HAMADA	9.09	297.5	2	10	-2				5	21	
ASOSAN	9.37	284.1	2	17	1	4	34	33			
KUMAMOTO	9.67	283.3	2	29	3				5	44	
AOMORI	9.78	355.0				3	56	-15			
HUKUOKA	10.06	287.5	2	23	-2	5	32	74			
NAGASAKI	10.35	282.4	2	30	1	4	45	20			
MORI	11.06	354.9				4	57	15			
URAKAWA	11.09	3.4	2	38	-1	4	32	-11			
HIROO	11.25	5.4				4	27	-20			
SAPPORO	11.99	358.1				4	50	-15	8	30	
KUSIRO	12.06	8.8				4	50	-16	7	19	
NEMURO	12.59	12.4							5	2	
VLADIVOSTOK	14.42	329.3	3	15	-8						
Y.-SAKHLINSK	15.95	2.1	3	39	-4						
GUAM	17.72	170.9	4	2	-3	7	20	2			
ZO-SE	17.75	275.5	4	3A	-2						
CHANGCHUN	18.28	318.8	4	7	-5	7	31	0			
NANKING	19.72	278.9	4	25A	-4	8	8	5	4	48	PP
PEKING	22.70	300.3	4	56A	-3	9	5	6	5	28	PP
BAGUIO CITY	24.29	238.0	5	24	10						
PETROPAVLOVK	25.10	24.2	5	22	0	9	48	7			
MANILA	25.11	234.1	5	29	7						
HONG KONG	26.21	257.3	5	30	-3	10	27	28			
CANTON	26.58	259.6	5	36K	0	10	16	11			
SIAN	27.88	285.4	5	44	-4				6	34	PP
MAGADAN	29.11	9.3	5	58	-1						
ULAN-BATOR	31.48	312.4	6	18	-2	11	30	7			
YAKUTSK	31.96	349.2	6	21A	-3	11	29	-2			
LANCHOW	31.97	289.3	6	21	-3	11	25	-6			
CHENGTU	32.42	279.3	6	23	-5	11	40	2			
IRKUTSK	34.61	318.7	6	46	-1	12	17	5			
KUNMING	34.92	270.1	6	47	-2	12	25	8			
ESEN BULAK	38.20	306.9	7	56A	39	13	11	4			
TIKSI	41.23	353.8	7	40	-2	13	54	1			
LHASA	43.59	281.7	8	0	-2						
SHILLONG	44.08	275.8	8	3A	-3	14	59	25	9	58	PP
CHATRA	47.68	279.4	8	43A	9						
SEMIPALATNSK	49.05	311.8	8	43	-2						
LEMBANG	49.95	226.9	8	51	-1						
CHARTERS TS.	51.03	174.7	8	59	-1						
FRUNSE	53.72	302.7	9	19A	-1						
HONOLULU	54.16	85.0	9	28	5	17	4	9			
NEW DELHI	55.46	285.2	9	28A	-5						
LAHORE	56.84	289.5	9	41	-1						
KHOROG	57.28	297.1	9	45	-1	17	42	6			
AMDERMA	57.85	336.1	9	48	-2						
TASHKENT	57.94	302.0	9	49A	-1	17	48	3			
WARSAK DAM	58.29	293.1	9	51	-2						
BRISBANE	59.05	168.7	10	8	10	17	4	-56			
DUZHANBE	59.06	299.0	9	58A	0	18	6	6			
SVERDLOVSK	59.96	321.1	10	3K	-1	18	15	4			
MOULD BAY	62.15	15.5	10	12	-7						
RIVERVIEW	65.13	171.5	10	28A	-31						
ADELAIDE	65.75	182.9	10	41	-1						
CANBERRA	66.37	173.7	10	48	2						
ASHKABAD	67.00	301.4	10	49	-1						
VANNOVSKAYA	67.18	301.5	10	51	-1						

APATITY	68.30	336.9	11	OK	1	19	57	2	20	51 SCS
SODANKYLA	70.63	338.2	11	12	-1					
TROMSOE	71.49	342.0	11	19	1					
KAJAANI	72.14	335.1	11	21	-1					
KIRUNA	72.24	340.1	11	21	-1	20	43	3	15	49
MOSCOW	72.31	324.9	11	22	-1	20	42	1		
TEHERAN	73.00	301.7	11	27	0	20	58	9		
PULKOVO	73.55	330.6	11	31	1	20	59	4		
TIFLIS	74.87	309.7	11	38A	0	21	16	6		
SHIRAZ	74.88	295.6	11	37	-1	21	13	3	21	49 SCS
UMEA	74.91	337.0	11	36	-2	21	13	9		
MINERAL	75.12	51.8	11	40	1					
NURMIJARVI	75.41	333.0	11	40	-1					
HELSINKI	75.50	332.6	11	43	2					
CHATEAU	76.59	153.7	12	0	12					
SKALSTUGAN	77.62	339.3	11	54	1					
SCORESBY SD.	78.08	354.5	11	58	2	21	54	9		
UPPSALA	78.50	334.8	11	58	0	21	49	0		
BOZEMAN	79.07	43.1	12	4	3					
EUREKA	79.31	50.4	12	3	0				15	2 PP
SIMFEROPOL	79.89	316.6	12	7	1	22	7	3		
PASADENA	80.55	55.9	12	12	3	22	14	3		
DUGWAY	80.98	48.4	12	12	0					
GOTEBORG	82.10	335.4	12	25	8					
WARSAW	82.30	327.8	12	13	-5				15	27 PP
FLAMING GRGE	82.74	46.3	12	22	1					
COPENHAGEN	83.43	333.9	12	26K	2	22	39	-1		
KRAKOW	84.28	326.7				22	52	3		
KSARA	84.99	306.6	12	31A	-1	23	3	7	15	50 PP
RACIBORZ	85.07	327.5	12	34	2					
COLLMBERG	86.48	330.7	12	40	1	23	16	6		
BUDAPEST	86.48	325.2							23	8
PRUHONICE	86.79	329.1	12	41	0	23	14	1		
BRATISLAVA	86.93	326.6	12	42	1	23	20	6		
VIENNA-H.	87.21	327.0				23	27	10		
JENA	87.35	331.1	12	54	11	23	20	1	29	11 SS
KASPERSKE H.	87.84	329.0	12	47	1				16	12 PP
ALBUQUERQUE	88.12	49.8	12	49	2					
DURHAM	88.92	339.8				23	40	7	23	31 SKS
STUTTGART	89.96	330.9	12	56	0	23	47	4	24	55 SP
ATHENS	90.32	315.8							23	30 PP
STRASBOURG	90.74	331.5	13	2	2	23	59	9	30	7 SS
KEW	91.35	337.5				23	59	4		
WICHITA MTS.	93.28	45.9	13	17	6	24	22	10	25	34 PS
ROSELEND	93.50	330.4							20	10
GARCHY	93.65	333.3	13	13	0					
ROME	93.73	324.7							23	40
JERSEY	93.90	337.3				24	22	5		
CLERMONT-FD.	94.88	332.4	13	39	21					
FAYETTEVILLE	94.97	42.4	13	22	3					
ADDIS ABABA	96.45	284.5				24	10	13		
DUMONT	97.43	180.8	17	26	236					
TOLEDO	102.66	333.8							32	2 SS
MALAGA	105.54	332.4	14	22	777				18	30 PP
CARACAS	130.27	38.4							21	56 PP

JULY 6 2.H 12.M 14.S EPICENTRE 11.74 57.60 DEPTH= 50.KM

A= 0.52479 B= 0.82688 C= 0.20215 D= 0.8443 E=-0.5359
G= 0.1083 H= 0.1707 K=-0.9794 HT= 6.3

DEPTH OF FOCUS= 0.003R

SE= 2.66

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
BOMBAY	16.31	62.3	3	46	-1	7	3	17			4	9	PP
POONA	17.07	64.8	3	56A	-1	7	20	16			4	11	PP
SHIRAZ	18.44	345.9	4	12	-2	7	41	7			4	38	PPP
ADDIS ABABA	18.71	263.5	4	17A	0	8	0	19					
KODAIKANAL	19.57	92.5									9	16	
HYDERABAD	20.95	71.9	4	40A	-1	8	46	19			9	33	SS
TEHERAN	24.55	347.8	5	20	3	9	46	15					
NEW DELHI	24.82	44.7	5	21A	2	9	46	10			11	4	SS
LAHORE	25.04	35.5	5	25	4								
WARSAK DAM	25.56	27.7	5	32K	6								

ASHKABAD	26.11	1.4	5	32	1					
KIZYL-ARVAT	27.37	357.8	5	41K	-2					
KHOROG	28.52	23.7	5	56	3					
DUZHANBE	28.52	18.5	5	54K	1					
ROKARO	29.36	62.0	5	59	-2	10	57	8		
KSARA	29.61	321.4	6	5	2	10	55	2	6	54 PP
EREVAN	30.60	340.1	6	12	0	11	9	0		
TASHKENT	31.20	17.1	6	18	1	11	29	10		
CHATRA	31.58	57.4	6	22	1	11	37	12		
LWIRO	31.82	245.9	6	22	-1	11	37	9		
TIFLIS	31.90	341.7	6	23	0					
TANANARIVE	32.04	198.1	6	30	6				7	18
SHILLONG	35.14	62.1	6	49A	-2	12	25	5	8	8 PP
ALMATA	35.61	24.6	7	0K	5					
LHASA	35.81	55.1	6	59	2	12	33	3		
SIMFEROPOL	38.72	333.1	7	29K	2	13	21	6		
BROKEN HILL	38.86	228.7	7	21A	-1					
ATHENS	39.96	316.7	7	34A	2	13	37	4	16	40 SS
BULAWAYO	42.63	222.2	7	51A	-3					
SEMIPALATNSK	42.80	21.3	7	42	-13					
KUNMING	44.64	66.1	8	10A	0	14	47	5		
SVERDLOVSK	45.05	2.4	8	14A	1					
BELGRADE	45.77	323.1	8	20	1	15	0	2	10	7 PP
MESSINA	45.78	312.6	8	21A	2	15	3	5	8 30	10 48 PP
TIMISOARA	45.86	324.6	8	29	9	15	10	11		
MOSCOW	46.58	344.6	8	25	0	15	14	5		
CHENGTU	46.81	58.9	8	25	-2	15	9	-4		
LWOW	46.95	330.7	8	28K	0	15	18	3		
ESEN BULAK	47.53	35.9	8	2	-31	15	26	3		
BUDAPEST	48.10	325.4	8	38	1	15	26	-5	10	32
LANCHOW	48.13	51.8	8	35A	-2	15	23	-8		
SKALNATE PL.	48.44	327.9	8	39	-1	15	41	5	10	36 PP
KRAKOW	49.13	328.6	8	45	0	15	47	2	10	41 PP
ROME	49.43	315.9	8	46	-1	15	54	4	9 32	10 47 PP
BRATISLAVA	49.56	325.2	8	48	0	15	54	3	10	45
LJUBLJANA	49.96	321.6	8	51K	0				10	50 PP
WARSAW	49.97	331.4	8	52K	0	16	2	5	10	47 PP
RACIBORZ	50.05	327.8	8	52	0	16	5	7	10	50 PP
TRIESTE	50.25	320.8	8	55	1	16	3	2	10	59 PP
FLORENCE X.	51.02	317.6	8	50	-10	15	50	-22	19	48 SS
BANDEIRA	51.23	240.0	9	0K	-1					
PADOVA	51.31	319.7	9	6	4	16	21	5	12	26 PPP
TANGERANG	51.91	107.5	9	9A	3					
PRUHONICE	51.94	326.0	9	5	-1				11	12 PP
KASPERSKE H.	52.05	324.6	9	4	-3				11	11 PP
PRAGUE	52.06	326.0	9	9	2	16	30	4	11	18 PP
PULKOVO	52.06	342.9	9	6K	-1	16	29	3		
CHIAVARI	52.51	317.5	9	8	-3	16	7	-25	20	12 SS
CHUR	53.40	320.5	9	16	-1	16	45	1		
COLLMBERG	53.48	326.7	9	17A	-1	16	50	5		
HELSINKI	54.02	340.5	9	21	-1				12	20 PPP
JENA	54.06	325.8	9	21	-1	16	56	3	11	22 PP
CANTON	54.09	70.0	9	21A	-1	16	57	3		
PAOTOW	54.14	48.2	9	21	-2	16	57	3		
STUTTGART	54.38	322.6	9	24	0	16	57	0	10	8 PCP
NURMIJARVI	54.38	340.7	9	23K	-2	16	59	2	11	23 PP
ULAN-BATOR	54.61	38.7	9	26	0					
ROSELEND	54.80	318.2	9	26	-2					
KARLSKRONA	54.92	332.8	9	27	-1					
HEIDELBERG	54.98	323.1	9	27	-2					
IRKUTSK	55.11	33.1	9	30	0	17	13	6		
STRASBOURG	55.20	321.8	9	30	0	17	9	1	11	37 PP
FELDBERG	55.50	323.9	9	26	-7					
BESANCON	55.79	319.8	9	33	-2					
COPENHAGEN	56.09	331.1	9	38A	1	17	26	6		
KAJAANI	56.31	344.7	9	36K	-2	17	24	1	11	38 PP
UPPSALA	56.40	337.1	9	37	-2	17	25	1	12	56
CLERMONT-FD.	57.14	317.3	9	45	1					
GOTEBORG	57.43	332.9	9	45	-1				10	36 PCP
WITTEVEEN	57.64	326.1	9	52	4					
GARCHY	57.66	319.0	9	47	-1	17	43	2	10	29
DOURBES	57.71	322.5	9	47	-1	17	44	2		
ALICANTE	57.85	308.0				17	48	5	13	3 PPP
APATITY	58.01	349.3	9	49K	-1	17	49	4	13	13 PPP
AMDERMA	58.04	1.7	9	48	-3					
DE BILT	58.16	324.9	9	58	6	18	0	13		
UMEA	58.23	341.5	9	50K	-2	17	51	3	10	52 PCP
BAGNERES	58.42	313.5	9	55	2					
PARIS	58.53	320.5	9	56	2	17	53	1		

PEKING	58.56	50.2	9	54	0	17	59	6				
ALMERIA	59.16	305.9	10	10K	12							
SODANKYLA	59.24	346.6	9	58K	-1						13	22 PPP
NANKING	59.49	59.7	9	59	-2	18	7	2				
FOLINIERE	60.38	319.8	10	6	-1							
MALAGA	60.67	305.5	10	11A	2	17	52	-28			12	28 PP
SKALSTUGAN	60.73	338.6	10	7K	-2							
TOLEDO	60.86	309.2	10	10K	0	18	27	5			20	6 SCS
BAGUIO CITY	61.07	77.7	10	16	4	18	30	5				
KIRUNA	61.10	344.8	10	10K	-2	18	17	-9			13	41
KEW	61.11	322.8	10	12	0	18	27	1			10	54 PCP
KEVO	61.12	348.3	10	9	-3							
ZO-SE	61.47	61.0	10	12	-2	18	24	-6				
JERSEY	61.52	319.9									18	32
MANILA	61.70	79.6	10	15	-1	18	48	15				
TROMSOE	62.80	345.8	10	21	-2							
DURHAM	62.90	326.0	10	28	4	18	51	3			11	34 PCP
ABERDEEN	63.98	328.4				19	6	4			23	16 SS
COIMBRA	64.23	309.0	10	34	2							
SERRA PILAR	64.47	310.0	10	35A	1	19	10	2			13	0 PP
LISBON	64.64	307.3	10	37	2	19	17	7	10	49		
CHANGCHUN	65.90	47.2	10	42	-1	19	20	-5				
VLADIVOSTOK	70.63	48.3	11	14	1							
YAKUTSK	71.33	28.3	11	17A	0	20	33	3				
TIKSI	73.06	18.3	11	25A	-2	20	49	0				
SIDA	73.21	333.3	11	30	2							
ABUYAMA	73.57	57.0	11	30A	0							
SCORESBY SD.	75.52	340.0	11	43	2	21	33	16				
MATUSIRO	75.61	55.1	11	41	-1	21	22	4				
Y.-SAKHLINSK	78.21	44.1	11	57	1	21	49	3				
MAWSON	79.22	177.9	11	59A	-3						12	6 PCP
MAGADAN	81.60	30.9	12	14	0	22	27	6				
ALERT	82.19	353.4	12	18	0							
WILKES	86.94	161.2				23	10	-4				
MOULD BAY	92.18	359.3	13	7	1							
CHARTERS TS.	92.72	109.8	13	11	3							
RIVERVIEW	99.35	122.6									27	34
COLLEGE	101.24	10.8	13	49	2						18	1 PP
VICTORIA	120.00	0.8	18	50	4							
BOZEMAN	121.95	350.6	18	52	3							
FAYETTEVILLE	125.48	332.0	19	1	5							
TULSA	126.36	333.2	19	3	5							
DUGWAY	127.57	350.7	19	2	2							
MINERAL	128.17	359.2	19	7	6							
WICHITA MTS.	128.57	334.8	19	3	1						21	7 PP
EUREKA	128.70	353.6	19	6	4						21	8 PP
BERKELEY	130.65	359.9									21	22
ALBUQUERQUE	131.17	342.6	19	13	6							
LICK	131.18	359.2	18	49	-18						21	24
BOULDER CITY	132.00	351.7	19	8	-1							
ISABELLA	132.71	355.6	19	15	5				21	42		
TUCSON TELE.	134.77	346.0	19	21	7							
TUCSON	134.88	346.1	19	17	3						21	55 PP

JULY 6 9.H 16.M 16.S EPICENTRE 37.78 20.16 DEPTH= 48.KM

A= 0.74379 B= 0.27314 C= 0.61006 D= 0.3447 E=-0.9387
G= 0.5727 H= 0.2103 K=-0.7924 HT= -0.9

DEPTH OF FOCUS= 0.002R

SE= 2.68

	DELTA DEG.	AZ. DFG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ATHENS	2.82	85.1	0	44K	0						0	53	PG
TARANTO	3.51	320.7	0	51	-3						1	44	
REGGIO CALA.	3.58	276.5	0	42A	-13	1	31	-6					
MESSINA	3.67	278.0	0	52K	-4	1	34	-5			1	6	PG
SKOPJE	4.30	12.8	1	3	-2						1	26	PG
TITOGRAD	4.70	351.8	1	10	-1						1	26	PG
SARAJEVO	6.22	348.3	1	40	8								
BELGRADE	7.04	1.7	1	40K	-3						2	15	PG
ROME	7.20	307.2	1	43K	-3	3	3	-4			1	56	P*
ISTANBUL KA.	7.63	61.8	1	50	-2								
TIMISOARA	8.00	5.3				3	36	9			2	45	PG

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SZEGED	8.46	359.8	2	13	10	3	38	0	2	41 PG
ZAGREB	8.62	340.1	2	0A	-5	3	22	-20	2	38 PG
KALOCSA	8.79	354.6	2	17	9				2	47 PG
FLORENCE X.	9.03	314.4	2	14	3	3	58	6		
KECSKEMET	9.14	358.0	2	27	14				3	7 PG
PRATO	9.18	314.4	2	24	11	3	51	-5		
TRIESTE	9.21	330.7	2	10	-3	3	53	-4		
LJUBLJANA	9.27	334.8	2	10K	-4	3	46	-12	5	29
CUGLIERI	9.34	288.4							2	34
BOLOGNA	9.45	318.0	2	19	2	3	54	-9	5	1
PADOVA	9.83	323.5	2	22	0	4	14	2	3	56
CHIAVARI	10.47	312.0	2	28	-3	4	16	-12	3	49
RAKHOV	10.56	14.9	2	31	-1					
BRATISLAVA	10.62	348.8	2	31A	-2				4	21
VIENNA-H.	10.82	346.4	2	42	6	4	48	12	6	0 SGSG
UZHGOROD	10.95	7.5	2	35	-2				5	20
PAVIA	11.07	315.4							3	2
KISHINEV	11.23	32.0	2	40	-1	4	46	0	6	29
ISOLA	11.79	306.9	2	48	-1				8	52
CHUR	11.99	322.4	2	49	-2				6	59
KRAKOW	12.27	359.3	2	52	-3	5	8	-3		
LWOW	12.35	11.8	2	56	0	5	18	5	6	13
RACIBORZ	12.38	354.1	2	56	0	5	16	2	3	13 PPP
ROSELFND	12.82	312.3	3	4	2					
PRUHONICE	12.84	343.5	3	8	5	5	20	-5		
PRAGUE	12.96	343.3	3	2	-2	5	25	-3	6	26
EBINGEN	13.22	325.4	3	6	-2					
KSARA	13.35	102.5	3	12	3	5	44	7	6	0 SS
NEUCHATEL	13.41	317.6	3	9	-1				8	9
BASLE	13.43	320.5	3	9	-1				7	48
TUBINGEN	13.44	326.6	3	10	0					
STUTTGART	13.53	327.7	3	9	-3				6	12
STRASBOURG	14.06	324.1	3	17	-2	5	59	5	3	32 PP
KARLSRUHE	14.08	326.6	3	24A	5	6	6	11		
HEIDELBERG	14.25	328.2	3	19	-2					
COLLMBERG	14.44	341.7	3	22	-2	6	22	19		
JENA	14.49	337.8	3	27	3	6	8	4	3	36 PP
CLERMONT-FD.	15.00	307.5	3	32	1					
FELDBERG	15.00	329.7	3	7	-24					
TORTOSA	15.52	287.4	3	37	-1					
GARCHY	15.75	312.5	3	40	0				3	51 PP
SOTCHI	15.91	62.5	3	40A	-3	6	33	-4		
ALICANTE	16.27	278.4	3	46	-1	6	55	9	4	1 PP
PARIS	16.90	316.3	3	54	-1	6	57	-3	6	7
UCCLE	17.20	324.2	3	58	-1	7	10	3		
WITTEVEEN	17.74	332.3	4	11	6					
DE BILT	17.77	328.5	4	12	6	6	36	-44		
ALMERIA	18.03	274.0	4	8	-1	7	28	3	4	20 PP
FOLINIERE	18.56	312.9	4	12	-3					
KARLSKRONA	18.64	352.0	4	14	-2					
COPENHAGEN	18.65	346.2	4	14	-3	7	49	10		
GRANADA	18.86	275.5	4	16K	-3	8	27	43	5	2 PP
TOLEDO	18.97	283.9	4	18K	-2	7	50	3	4	36 PP
TIFLIS	19.33	70.6	4	23	-1				8	21
JERSEY	19.69	312.4	4	29	1	8	1	-1		
KEW	19.90	320.0	4	29	-2	8	7	0		
BENI ABBES	20.02	254.2	4	28	-4	8	23	14		
GOTEBORG	20.65	347.5	4	37A	-1					
MOSCOW	21.47	27.6	4	45A	-2				5	6 PP
UPPSALA	22.15	356.6	4	52A	-1	8	50	1		
COIMBRA	22.32	285.1	4	53K	-2					
SERRA PILAR	22.42	287.6	4	54	-2	8	54	0	5	23 PP
DURHAM	22.53	325.9	4	57A	0	9	3	7	7	0
HELSINKI	22.62	6.3	4	58	0	9	5	7		
NURMIJARVI	22.93	5.7	5	0A	-1	9	10	7	8	40 PCP
PULKOVO	22.95	13.2	5	0A	-1	9	9	5	5	47 PP
ABERDEEN	24.35	330.0	5	17	2	9	28	0	10	39 SS
BERGEN	24.53	342.1	5	19	2					
TEHERAN	25.04	85.1	5	22	0	9	58	18	16	45 SCS
UMEA	26.07	0.1	5	29A	-2	9	58	1		
SKALSTUGAN	26.27	352.0	5	31A	-2					
KAJAANI	26.72	7.4	5	36A	-1	10	16	9		
SHIRAZ	28.00	97.2	5	49A	0	10	35	7	6	0 10 54 *SS
SODANKYLA	29.86	5.0	6	4	-2					
ASHKABAD	30.01	77.7	6	6	-1				7	21 PPP
KIRUNA	30.10	0.2	6	6	-2	11	3	1	12	19 SS
APATITY	30.74	9.9	6	12A	-1	11	17	5	12	42 SS
TROMSOE	31.92	359.2	6	21	-3					
KEVO	32.25	4.5	6	25	-2					

SVERDLOVSK	32.75	41.3	6	30K	-1	11	43	0			8	3 PPP
ADDIS ABABA	33.19	144.8	6	37	2	12	2	12				
BANGUI	33.27	182.8	6	36	1	11	56	5				
SIDA	34.61	331.1	6	44	-3							
PONTA DELGDA	35.96	284.4				12	39	6				
REYKJAVIK	36.27	330.2	7	5	4							
TASHKENT	37.63	68.8	7	11	-1						9	38 PCP
AMDERMA	38.89	21.5	7	22A	-1	13	24	7				
QUETTA	39.20	86.9	7	25	0							
SCORESBY SD.	39.45	339.2	7	29	1	13	33	7				
KHOROG	40.25	74.1	7	38	4							
FRUNSF	41.23	65.3	7	42	0	13	54	2			16	56 SS
WARSAK DAM	41.38	79.1	7	41	-2							
SEMIPALATNSK	43.81	53.3	8	2	-1						17	56 SS
LAHORE	44.46	81.2	8	30	21							
NORD	45.84	352.9	8	19	-1							
NEW DELHI	47.97	83.4	8	35A	-1	15	36	6				
POONA	50.36	96.9	8	58K	3							
ALERT	51.81	350.4	9	5	-1	16	27	4				
BANDEIRA	52.79	188.3	9	12K	-1				9	22		
ESEN BULAK	55.09	55.0	9	32	2						18	30
BOKARO	57.01	84.0	9	51	7	17	45	12			10	53
IRKUTSK	57.94	46.2	9	48	-2	17	47	2				
BULAWAYO	58.16	170.7	9	51	-1							
LHASA	58.25	75.3	9	52	0	17	56	7				
RESOLUTE	60.08	343.9	10	4	-1							
TIKSI	60.13	20.3	10	3A	-2	18	19	6			12	21 PP
HALIFAX	60.76	305.6	10	8	-2							
SHILLONG	60.89	79.0	10	8A	-3							
ULAN-BATOR	61.20	50.0	10	14	1						17	5
TANANARIVE	62.00	150.5	10	23A	5							
MOULD BAY	63.39	350.0	10	26	-1							
PRETORIA	63.64	171.9									10	59 PCP
LANCHOW	64.64	63.0	10	34	-1	19	14	4				
CHANGALANE	64.72	168.1	10	37A	1							
SHAWINIGAN	65.58	310.8	10	40	-1							
YAKUTSK	65.62	29.2	10	41A	-1	19	27	5			19	55 PS
BREBEUF	66.62	310.1	10	45	-3							
PAOTOW	66.63	56.1	10	47	-1	19	39	5				
CHENGTU	67.50	68.0	10	53	-1	19	49	4				
PALISADES	69.14	306.1	11	8	4						20	12 SCS
SIAN	69.14	62.4	11	4	0	20	13	9				
FORDHAM	69.20	306.0	11	3	-1	20	9	4				
KUNMING	69.49	73.7	11	5	-1	20	11	3				
PEKING	70.90	53.9	11	14	0	20	24	-1				
PENNSYLVANIA	71.76	307.7	11	20K	0							
HERMANUS	71.84	180.8									42	40 PKPPKS
CHANGCHUN	74.27	46.5	11	34	0	21	8	5				
MAGADAN	74.80	23.6	11	37	0							
SAN JUAN	76.12	282.5	11	45	0							
NANKING	77.20	59.4	11	50	-1	21	40	5				
COLLEGE	77.25	354.8	11	51	0				12	1		
VLADIVOSTOK	78.43	44.0	11	54	-4	21	55	6				
CANTON	78.61	69.7	12	0	1	21	57	6				
ZO-SE	79.41	58.9	12	4	1	22	2	3				
HONG KONG	79.69	69.9	12	4	-1	22	8	6				
FLORISSANT	80.59	312.1	12	9	0	22	12	1				
ST. LOUIS 1	80.61	311.9	12	11	1	22	16	4				
Y.-SAKHLINSK	81.19	35.7	12	13A	0	22	23	6			15	22 PP
CARACAS	81.38	276.6	12	12	-2	22	26	7				
ROLLA	82.08	312.3	12	18	1	22	32	5				
PETROPAVLOVK	82.66	23.8	12	22	2	22	32	-1			15	32 PP
BANFF	83.29	333.7	12	24	1							
RAPID CITY	83.75	322.7	12	26	0							
MANHATTEN	83.86	315.7	12	27A	1	22	46	1				
FAYETTEVILLE	84.66	312.2	12	30A	0						15	53 PP
HUNGRY HORSE	85.07	331.3	12	33	1						13	43
TULSA	85.72	312.9	12	36	1	23	4	1				
BOZEMAN	86.05	328.1	12	39	2							
PENTICTON	86.25	335.0	12	39A	1							
BUTTE	86.40	329.1	12	39	0							
MATUSIRO	86.47	45.4	12	40K	1	23	6	-4				
LARAMIE	86.99	322.2	12	43	1							
TUKUBASAN	87.76	44.5	12	44K	-1	23	11	-11			23	28 *SS
BAGUIO CITY	88.06	70.8	13	0	13	23	14	-11				
WICHITA MTS.	88.17	313.7	12	49	2	23	37	11			16	29 PP
VICTORIA	88.18	336.7	12	51	4							
SALT LAKE C.	90.34	325.6	12	58	0							
DUGWAY	91.23	325.9	13	2A	0							

ALBUQUERQUE	92.32	318.7	13	8	1						
EUREKA	93.20	327.5	13	12	1					17	21 PP
MINERAL	94.72	331.7	13	19K	1						
RENO	94.73	330.1	13	24	6						
BOULDER CITY	95.60	324.8	13	24	2						
TUCSON TELE.	96.56	319.9	13	28	2					17	31 PP
CALISTOGA	96.58	331.5	13	37A	11						
TUCSON	96.69	319.9	13	28	1						
BERKELEY	97.13	330.9				24	56	55			
LICK	97.35	330.2	13	33K	3						
ISABELLA	97.48	327.1	13	37	7						
PRIEST	97.99	328.9	13	31A	-2						
PASADENA	98.63	326.1								17	58 PP
SOUTH POLE	127.59	180.0	19	1	0						
CHARTERS TS.	130.32	84.9	19	11	5						
BYRD STATION	134.92	189.2	19	14	0						
CANBERRA	139.24	102.7	19	20	-2						
KARAPIRO	160.56	98.0								20	39 PKP2

JULY 6 15.H 54.M 23.S EPICENTRE 37.78 20.24 DEPTH= 0.KM

A= 0.74341 B= 0.27415 C= 0.61006 D= 0.3460 E=-0.9382
G= 0.5724 H= 0.2111 K=-0.7924 HT= -0.9

SE= 3.74

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ATHENS	2.76	85.0	0	51	4						1	0	PG
TARANTO	3.55	320.0	0	29	-29	1	3	-38					
REGGIO CALA.	3.64	276.4									1	37	
MESSINA	3.73	277.9	0	59K	-1	1	41	-5					
TITOGRAD	4.70	351.1	1	13	-1	2	17	7			1	41	
BELGRADE	7.03	1.2	1	48	1						2	3	PG
ROME	7.25	307.0	1	29	-27	2	15	-59			4	2	
ISTANBUL KA.	7.58	61.6	2	1	6								
SZEGED	8.46	359.5									2	34	PG
ZAGREB	8.64	339.8	2	7A	-2								
FLORENCE X.	9.08	314.1									6	2	
TRIESTE	9.24	330.4				4	1	-3			5	15	SGSGSG
LJUBLJANA	9.30	334.5	2	11	-8	3	57	-8					
BUDAPEST	9.73	355.1									4	27	
PADOVA	9.87	323.2				3	57	-22			6	7	
CHIAVARI	10.52	311.8									2	52	PG
BRATISLAVA	10.63	348.5	2	39	2						5	54	
UZHGOROD	10.95	7.2	2	37	-4								
KISHINEV	11.20	31.7	2	41	-4								
ISOLA	11.84	306.8	2	55	2						13	49	
KRAKOW	12.27	359.1	3	6	7								
KASPERSKE H.	12.33	339.1	2	56	-4						3	50	
LWOW	12.34	11.5	3	5	5								
RACIBORZ	12.38	353.9	2	59	-2						8	45	PCP
SIMFEROPOL	12.64	51.1	3	12	8								
PRUHONICE	12.86	343.3	2	51	-16								
PRAGUE	12.97	343.1	2	57	-12								
KSARA	13.29	102.6	3	10	-3								
STUTTGART	13.56	327.6	3	18	2								
STRASBOURG	14.10	323.9	3	21	-2						4	15	
COLLMBERG	14.46	341.5	3	37K	9						9	16	
JENA	14.52	337.7	3	31	2								
DOURBES	16.65	322.7	3	56	0	7	11	9					
FOLINIERE	18.60	312.8	4	18	-3								
KARLSKRONA	18.65	351.8	4	23	2								
GRANADA	18.93	275.5	4	36A	11						5	8	PP
EREVAN	19.00	75.2	4	26	0								
TIFLIS	19.27	70.5	4	28	-1								
KEW	19.94	319.9	4	37	0								
GOTEBORG	20.66	347.4	4	43	-1								
MAKHACH-KALA	21.36	67.4	4	50	-1	8	50	6					
MOSCOW	21.44	27.5	4	51	-1	8	53	7					
UPPSALA	22.15	356.5	4	58K	-1								
HELSINKI	22.61	6.2	5	4	0								
NURMIJARVI	22.92	5.6	5	6	-1								
PULKOVO	22.93	13.1	5	6	-1	9	14	1					
TEHERAN	24.98	85.1	5	28	1						15	2	
UMEA	26.07	360.0	5	39	2								

SKALSTUGAN	26.28	352.0	5	37	-2					
SHIRAZ	27.94	97.2	5	59A	-1	10	37	-1	6	45 PP
SODANKYLA	29.86	5.0	6	11	0					
KIRUNA	30.10	0.1	6	12	-2					
APATITY	30.73	9.9	6	17K	-2					
SVERDLOVSK	32.71	41.2	6	35	-2					
ADDIS ABABA	33.15	145.0	6	43A	3					
AMDERMA	38.87	21.5	7	27	-2					
LWIRO	40.61	166.8	7	44A	1					
NEW DELHI	47.91	83.5	8	39A	-3					
SHILLONG	60.83	79.0	10	14	-3					
YAKUTSK	65.58	29.2	10	46A	-2					
COLLEGE	77.26	354.8	11	53	-5					
Y.-SAKHLINSK	81.15	35.7	12	19	0					
FAYETTEVILLE	84.70	312.2	12	37	0					
HUNGRY HORSE	85.09	331.4	12	40	1					
WICHITA MTS.	88.22	313.8	12	54	-1				13	42

JULY 6 23.H 5.M 32.S EPICENTRE 36.49 70.34 DEPTH= 204.KM

A= 0.27111 B= 0.75890 C= 0.59210 D= 0.9417 E=-0.3364
G= 0.1992 H= 0.5576 K=-0.8059 HT= -0.4

DEPTH OF FOCUS= 0.027R

SE= 2.16

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
KHOROG	1.37	43.6	0	37	3								
KULYAB	1.48	341.6	0	35	0								
OBI-GARM	2.26	347.2	0	44	1								
DUZHANBE	2.42	329.4	0	43K	-1	1	17	-1					
GARM	2.51	359.3	0	45	0								
WARSAK DAM	2.67	157.9	0	45A	-2								
DZERGETAL	2.81	14.2	0	49	0								
FERGANA	4.04	15.8	1	4	0	1	54	2					
SAMARKAND	4.14	321.1	1	4K	-1						1	55	
ANDIJAN	4.54	19.9	1	11K	1	2	6	2					
NAMANGAN	4.60	12.6	1	11K	0								
TASHKENT	4.89	350.6	1	14K	0	2	8	-4					
TCHIMKENT	5.83	354.6	1	25	-1								
NARYN	6.61	40.1	1	34	-2								
FRUNSE	7.14	26.2	1	43K	0	3	5	1					
FABRICHNAYA	8.12	33.4	1	56	0								
PRZHEVALSK	8.63	43.7	2	3K	0	3	39	1			4	4	
ALMATA-2	8.66	36.4	2	0	-3						3	21	
DEHRA DUN	8.91	131.5	2	4	-2	3	40	-5			2	13	PP
KURMENTY	8.92	40.8	2	6	0								
CHILIK	9.40	38.7	2	12	-1						4	13	
NEW DELHI	9.78	141.8	2	13K	-5	3	54	-11					
SEHORE	14.50	154.4	3	17	0	5	51	-2					
TEHERAN	15.34	272.8	3	30	2	6	19	7			8	21	PCP
SEMIPALATNSK	15.63	24.1	3	30	-1								
SHIRAZ	16.41	250.6	3	40K	-1	6	43	7			7	2	SS
CHATRA	17.24	119.2	3	51K	1	6	53	0					
BOMBAY	17.66	172.2	3	56	1	7	17	15			4	52	SP
POONA	18.16	169.3	4	0K	0	7	24	12			4	14	PP
BOKARO	18.35	129.2	4	22K	20	7	18	2					
LHASA	18.63	105.6	4	7A	2	7	28	7			5	7	*SP
HYDERABAD	20.30	157.2	4	22K	0	8	3	10			4	31	PP
TIFLIS	20.46	292.6	4	24	1						8	6	
EREVAN	20.58	288.2	4	27A	2	8	5	7					
HOWRAH	20.87	126.8	4	33	6	8	13	10					
CALCUTTA	20.92	126.7	4	28	0	8	13	9					
SVERDLOVSK	21.37	345.3	4	33K	1	8	17	5					
SHILLONG	21.37	114.6	4	32K	0	8	18	6					
ESEN BULAK	21.71	54.8	4	37K	1	8	24	6					
VISHAKHAPTNM	21.93	145.1	4	41K	3	8	31	9			4	59	PP
TOCKLAI	22.90	108.2	4	48	1	9	0	22					
SOTCHI	24.40	296.3	5	3A	2	9	6	2	5	41	10	12	*SS
MADRAS	25.01	156.8	5	7K	0	9	29	15			5	45	PP
KODAIKANAL	26.93	164.4	5	17	-8						6	2	
LANCHOW	26.93	80.9	5	25A	0	9	46	1	6	10	6	31	*SP
KSARA	28.21	274.9	5	37A	1	10	12	7	6	21	6	45	*SP
SIMFEROPOL	28.53	298.5	5	39A	0	10	11	0			6	45	*SP
CHENGTU	28.55	91.9	5	39A	0	10	10	-1			6	48	*SP

IRKUTSK	28.63	45.8	5	40A	0				6	26			
ULAN-BATOR	29.13	55.4	5	45A	1	10	24	4					
MOSCOW	29.33	321.4	5	46	0	10	21	-2	6	30			
KUNMING	29.91	103.1	5	51A	0	10	32	0	6	35	7	0	*SP
PAOTOW	31.13	70.2	6	3A	1	10	53	2			12	7	*SS
SIAN	31.40	82.5	6	4A	0	10	57	1			7	12	*SP
PORT BLAIR	31.90	135.1	6	9K	0	11	6	3			9	2	PCP
ISTANBUL KA.	32.28	290.9	6	12	0								
KISHINEV	32.36	302.1	6	12	-1	11	10	0	6	56			
AMDERMA	33.67	354.6	6	23	-1	11	35	4					
PULKOVO	34.62	325.1	6	31A	-1	11	43	-2	7	17	7	57	PP
LWOW	35.74	306.7	6	41A	0						11	51	
PEKING	35.86	70.1	6	43A	1	12	5	1			13	29	*SS
ATHENS	36.85	286.7	6	52A	1	12	21	2			8	21	PP
HELSINKI	37.27	324.0	6	54A	0				7	38	8	24	PP
APATITY	37.42	337.7	6	55A	0	12	28	0	7	41	8	27	PP
NURMIJARVI	37.52	324.5	6	56A	0	12	27	-3	7	40	8	24	PP
KAJAANI	37.59	330.8	6	56A	-1								
TIMISOARA	37.63	299.9	6	58	1	12	29	-2	7	21	8	23	PP
WARSAW	37.82	310.5	6	58A	-1	12	29	-5	7	45	8	29	PP
SKOPJE	37.86	293.7	6	58	-1	12	33	-2			8	28	
BELGRADE	38.24	298.4	7	2A	0	12	41	1			8	36	PP
SZEGED	38.35	300.8	7	10	7	12	19	-23			8	46	PPP
KRAKOW	38.40	306.9	7	2	-2	12	44	1			13	53	*SS
KECSKEMET	38.61	301.9	7	2	-3						8	16	PP
BUDAPEST	39.04	302.8	7	11	2	12	55	3			8	49	PPP
KALOCSA	39.13	301.3	7	9	-1						8	7	
CANTON	39.32	97.7	7	11A	0	12	56	-1	7	58	14	14	*SS
TITOGRAD	39.39	294.8	7	15	3	12	56	-2			7	31	PP
RACIBORZ	39.51	306.9	7	14	1	13	6	7	7	55	8	56	PP
SODANKYLA	39.52	335.2	7	12	-1								
HURBANOVO	39.58	303.4	7	16	3	13	4	4	8	4	8	46	PP
ADDIS ABABA	39.60	234.2	7	16K	3	13	10	9					
NANKING	39.94	81.7	7	17A	1	13	6	0			14	29	*SS
BRATISLAVA	40.30	304.0	7	12A	-7						8	47	
HONG KONG	40.38	98.1	7	21A	1	13	4	-8	8	7	8	50	PP
UMEA	40.54	328.4	7	20A	-1	13	14	-1	8	8	8	31	*SP
KEVO	40.62	338.5	7	22	0								
UPPSALA	40.75	322.0	7	21A	-2	13	16	-2	8	8	8	57	PP
VIENNA-H.	40.78	304.1	7	26A	3	13	21	3	8	13	9	4	PP
ZAGREB	41.27	300.5	7	28	1	13	28	3					
KARLSKRONA	41.33	316.2	7	22A	-6								
KIRUNA	41.86	334.2	7	31A	-1	13	33	-1	8	18	9	13	PP
PRUHONICE	41.87	306.9	7	33	1				8	21			
MEDAN	41.87	134.8	7	29A	-3	13	25	-9					
PRAGUE	41.94	307.0	7	36	3	13	44	9			9	59	PPP
CHANGCHUN	41.98	62.4	7	31	-2	13	33	-3			8	40	*SP
ZO-SE	42.19	82.0	7	35A	0	13	40	1			14	59	*SS
LJUBLJANA	42.25	301.0	7	35	0	13	43	3	8	19	9	12	PP
NHATRANG	42.44	114.6	7	37	0								
KASPERSKE H.	42.56	305.7	7	37A	-1				8	25	9	24	PP
COLLMBERG	42.79	308.9	7	39	0	13	47	0					
TRIESTE	42.84	300.6	7	41A	1	13	56	8			9	21	PP
REGGIO CALA.	43.01	289.3	7	43A	2						13	53	
MESSINA	43.05	289.4	7	42A	0	13	46	-5	8	29	9	18	PP
TROMSOE	43.06	336.4	7	41	-1								
COPENHAGEN	43.07	315.4	7	42A	0	13	53	2					
GOTEBORG	43.41	318.3	7	42A	-2				8	31			
JENA	43.70	308.5	7	46	-1	13	58	-3	8	35	9	35	PP
SKALSTUGAN	43.92	326.8	7	48A	-1								
PADOVA	44.18	300.5	7	52A	1	14	10	2	8	40	9	48	PP
YAKUTSK	44.30	35.5	7	52A	0								
ROME	44.44	295.5	7	54A	1	14	10	-1	8	27	9	54	PP
TAICHUNG	44.70	91.4	7	56	1						15	42	
BOLOGNA	44.72	299.3	8	3	8	14	23	8			11	8	PPP
TAINAN	44.88	93.1	8	0	4								
FLORENCE X.	44.92	298.3	7	59A	3						15	45	
TAIPEI	44.97	89.8	7	59	2								
ALISHAN	45.10	92.1	8	0	2								
KAOHSIUNG	45.11	93.6	8	9	11								
ILAN	45.28	90.0	8	2	3								
STUTTGART	45.41	305.6	8	1	1	14	28	3	8	49	9	53	PP
CHUR	45.54	302.9	8	1A	0						8	51	PP
HWALIEN	45.55	91.1	8	3	2								
TUBINGEN	45.59	305.3	8	2	0								
HEIDELBERG	45.69	306.6	8	2	-1				8	51			
ESINGEN	45.71	304.8	8	2	-1				8	52			
TAWU	45.75	93.5	8	6	3								

TAITUNG	45.75	92.8	8	7	4							
FELDBERG	45.76	307.7	8	7	4				8	54		
HSINKONG	45.76	92.3	8	5	2							
HENGCHUN	45.80	94.0	8	8	5							
TIKSI	45.98	22.1	8	4A	-1	14	32	-1			18	35
PAVIA	46.10	300.7	8	6A	0	14	40	5	8	56	10	50 PPP
CHIAVARI	46.17	299.5	8	10A	4	14	26	-10			9	52 PP
STRASBOURG	46.43	305.6	8	9	1	14	41	1	8	56	10	1 PP
RENSBERG	46.48	308.9	8	9	0				8	57		
WITTEVEEN	46.57	311.5	8	9	0							
BASLE	46.74	304.2	8	11A	0							
VLADIVOSTOK	46.82	62.0	8	8A	-3	14	43	-2	8	52	9	15 *SP
BERGEN	46.94	322.0	8	12	0	14	46	-1			17	36 SS
NEUCHATEL	47.26	303.6	8	14	-1	14	48	-3				
ITUHARA	47.48	74.4	8	17A	1	14	55	1				
DE BILT	47.56	310.7	8	19A	2	14	49	-6	9	29	10	14 PP
HUKUE	47.66	76.5	8	18	0						16	27
CUGLIERI	47.74	294.2									16	38
ROSELEND	47.74	301.9	8	18	-1							
BESANCON	47.86	304.1	8	18	-1				9	7	10	12 PP
DOURBES	48.23	308.1	8	21	-1	15	2	-3				
NAGASAKI	48.47	76.0	8	24A	0	15	10	2				
HUKUOKA	48.55	74.8	8	25A	0	15	9	0				
SAGA	48.61	75.2	8	29	4							
BAGUIO CITY	48.62	100.5	9	26	61	15	8	-2				
UNEZENDAKE	48.76	75.9	8	29	3						17	28
SIMONOSEKI	48.84	74.1	8	29	2							
KUMAMOTO	49.08	75.6	8	30A	1	15	19	2				
ASOSAN	49.34	75.3	8	33	2	15	30	10				
HAMADA	49.39	72.5	8	32	1	15	21	0			16	49
MAWASHI	49.40	84.9	8	31	0							
KAGOSIMA	49.44	77.2	8	34A	2						16	43
OOITA	49.64	74.7	8	28	-5							
GARCHY	49.79	304.7	8	34	0	15	30	4			10	31 PP
PARIS	49.83	306.7	8	34	0	15	29	2	9	21	10	33 PP
YAKUSIMA	49.85	78.5	8	35	0	15	28	1				
HIROSIMA	49.85	73.0	8	35	0	15	56	29				
SAIGO	49.89	70.4	8	35	0						16	47
MATSUE	49.96	71.4	8	35	0	15	29	0				
MIYAZAKI	49.99	76.4	8	36	0	15	30	1				
MANILA	50.01	102.0	8	37	1	15	27	-3				
CLERMONT-FD.	50.11	302.7	8	37A	0	15	34	3				
YONAGO	50.18	71.3	8	36A	-1	15	31	-1				
MATUYAMA	50.32	73.5	8	38	0	15	32	-2				
UWAZIMA	50.37	74.3	9	1	22						18	1 SCS
TOTTORI	50.78	70.9	8	40	-2							
SIMIDU	50.86	74.7	8	42	0						17	1
KOTI	51.00	73.5	8	44A	1	15	43	0			17	6
ABERDEEN	51.03	318.1	8	43	0	15	39	-4			10	38 PP
KEW	51.03	310.6	8	43A	-1	15	43	-1	9	32	10	41 PP
TAKAMATU	51.12	72.4	8	44A	0	15	44	-1				
DURHAM	51.14	315.0	8	43K	-1	15	42	-3	9	34	10	42 PP
TSURUGISAN	51.26	73.0	8	47	2							
TOYOOKA	51.26	70.7	8	46A	1							
MUROTO	51.62	73.6	8	46	-2						14	25
MAIZURU	51.72	70.5	8	48	-1						17	22
FOLINIERE	51.75	307.3	8	48	-1							
SUMOTO	51.77	72.0	8	50	1	15	55	1			9	57
KOPE	51.85	71.5	8	49	-1	15	54	-1				
ABUYAMA	52.08	71.2	8	50	-1							
OSAKA	52.13	71.4	8	52A	0						17	26
KYOTO	52.14	70.9	8	53A	1						16	58
HUKUI	52.14	69.5	8	52A	0						9	29
TSURUGA	52.17	70.1	8	52	0							
WAZIMA	52.17	67.7	8	51	-1	15	57	-2				
KANAZAWA	52.29	68.8	8	54	1							
HIKONE	52.44	70.4	8	55	1	16	4	1			18	17 SCS
TOYAMA	52.64	68.4	8	56A	1	16	7	2				
JERSEY	52.68	308.1	8	55K	-1	16	1	-5				
KAMEYAMA	52.77	70.8	8	57	1	15	51	-16				
SIOMISAKI	52.77	72.7	8	58	2						17	36
SUTTSU	52.79	60.2	9	3	6	16	5	-2			17	30
GIHU	52.79	70.1	8	56	-1	16	6	-1				
OWASE	52.86	71.8	8	57	0	16	8	0				
TAKAYAMA	52.88	69.0	8	57	0							
BAGNERES	52.91	300.2	8	55	-2							
WAKKANAI	52.99	56.7	8	58A	0	16	11	1				
NAGOYA	53.03	70.3	8	58A	0	16	9	-2				
Y.-SAKHLINSK	53.22	54.5	9	0A	0	16	14	1			19	46 SS

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MORI	53.25	60.9	9	3A	3	16	18	4		17	39 SCS
TAKADA	53.28	67.6	9	0	0	16	39	25			
MATUMOTO	53.38	68.6	9	1	0						
TORTOSA	53.39	297.4	8	59	-2	16	14	-2			
RUMOE	53.39	58.4	9	1	0						
NAGANO	53.40	68.1	9	2A	1	16	16	0		17	44 SCS
MATUSIRO	53.45	68.2	9	0A	-1	16	14	-2			
MURORAN	53.47	60.6	9	7	5						
HAKODATE	53.48	61.2	9	0A	-2	16	15	-2			
SAPPORO	53.48	59.6	9	1A	-1	16	15	-2		17	42 SCS
IIDA	53.55	69.5	9	3	1					10	13
NIIGATA	53.57	66.3	8	49	-13	16	19	1			
AKITA	53.71	63.9	9	4A	1	16	21	1			
NORD	53.71	349.5	9	2A	-1					12	55
HAMAMATU	53.77	70.5	9	3	-1					17	50
TOMAKOMAI	53.78	60.0	8	54	-10						
OIWAKE	53.78	68.3	9	4	0	16	21	0			
SAKATA	53.80	64.9	9	4	0						
AOMORI	53.82	62.4	9	3	-1	16	20	-1			
ASAHIGAWA	53.96	58.4	9	6A	1						
KOHU	54.04	69.1	9	5	-1	16	23	-1			
MAEBASI	54.15	68.1	9	6A	0	16	22	-4			
SHIZUOKA	54.19	69.9	9	7	0	16	24	-2		17	57
OMAESAKI	54.20	70.4	9	8	1						
HUNATU	54.26	69.2	9	8	1					10	25
TITIBU	54.31	68.5	9	8	0	16	26	-2			
TANGERANG	54.36	133.6	9	3K	-5	16	18	-11			
YAMAGATA	54.41	65.5	9	7	-1	16	29	0			
HATINOHE	54.46	62.5	9	10A	1	16	27	-3			
KUMAGAYA	54.47	68.2	9	5	-4	16	29	-1			
MORIOKA	54.49	63.5	9	8A	-1	16	30	0		10	19
DJAKARTA	54.49	133.4	9	5	-4					15	13
MISIMA	54.55	69.6	9	9A	0	16	30	-1			
LWIRO	54.58'	234.4	9	8	-2	16	37	6			
MIZUSAWA	54.66	64.2	9	9	-1	16	30	-3			
HUKUSIMA	54.68	66.0	9	11A	1	16	34	1			
AJIRO	54.69	69.6	9	9	-1	16	33	0			
UTUNOMIYA	54.69	67.6	9	9	-1	16	31	-2			
MAGADAN	54.72	38.0	9	9A	-2	16	32	-1			
SHIRAKAWA	54.73	66.8	9	11	0	16	35	2			
URAKAWA	54.78	60.2	9	10A	-1					15	52
SENDAI	54.81	65.3	9	10A	-1	16	32	-2			
OBIHIRO	54.81	59.2	9	11	0						
TOKYO C.M.O.	54.93	68.6	9	12A	0	16	37	1			
HONGO	54.93	68.6	9	12	0	16	36	0		10	38
YOKOHAMA	54.95	68.9	9	13	1						
ALICANTE	54.97	294.9	9	15	3	16	39	2	10 7	11	19 PP
TUKUBASAN	54.99	67.9	9	10K	-3	16	33	-4	9 50	12	35 PPP
OSIMA	55.01	69.8	9	12	-1	16	36	-1			
KAKIOKA	55.04	67.8	9	12	-1						
ISINOMAKI	55.06	64.9	9	12	-1	16	36	-2			
MIYAKO	55.08	63.3	9	12A	-1	16	36	-2			
HIROO	55.12	59.9	9	13	0						
ABASHIRI	55.19	57.6	9	14	0						
MITO	55.20	67.6	9	13A	-1	16	40	0			
MERA	55.29	69.4	9	14A	-1	16	36	-5			
ONAHAMA	55.30	66.8	9	14A	-1	16	40	-1			
LEMPANG	55.47	133.1	9	11K	-5	16	29	-14			
KUSIRO	55.62	58.8	9	15A	-2	16	42	-3			
TYOSI	55.74	68.1	9	17	-1						
NEMURO	56.31	58.0	9	20A	-2	16	51	-3			
SCORESBY SD.	56.85	336.3	9	26	0	17	5	4			
TOLEDO	56.98	297.9	9	26A	-1	17	4	1	10 17	11	46 PP
ALMERIA	57.00	294.0	9	26A	-1	17	4	1	10 11	11	33 PP
BANGUI	57.13	248.7	8	42	-46	16	57	-8			
KURILSK	57.19	55.2	9	27A	-1	17	4	-2			
SIDA	57.29	328.1	9	28A	-1				10 15		
GRANADA	57.70	294.8	9	30K	-2	17	16	3		11	19 PP
MALAGA	58.47	294.6	9	37	0	17	18	-5	10 26	11	50 PP
REYKJAVIK	58.79	329.2	9	41K	2				10 26	20	55
TANANARIVE	59.17	205.3	9	42K	0	17	35	3	10 31	11	56 PP
SERRA PILAR	59.69	300.8	9	44	-1	17	36	-2	10 35	12	0 PP
COIMBRA	59.94	299.8	9	47K	0	18	34	52	10 38	13	31 PPP
BROKEN HILL	64.24	225.9	10	14K	-2						
THULE	64.38	350.0	10	13	-4	18	37	3	11 6	11	25 *SP
MOULD BAY	67.38	2.5	10	35A	-1						
RESOLUTE	68.68	355.8	10	41	-3						
BULAWAYO	68.75	222.1	10	43K	-1						
LOME	69.62	262.4	11	32	43						

GUAM	69.65	88.1	10	47	-2	19	36	-4	11	35	12 2	*SP
LUANDA	70.00	242.0	10	52K	0	19	44	0	12	42	11 19	PCP
PONTA DELGDA	72.92	304.4	11	9A	0	20	21	4	12	3	20 57	SCS
ANGRA DO HO.	73.43	305.9	11	19	7	20	29	6				
PRETORIA	73.57	219.1	11	2	-11							
BANDEIRA	74.18	237.5	11	15K	-1	20	31	0	12	4	38 46	PKPPKP
COLLEGE	74.64	15.9	11	18	-1	20	36	0	12	12	14 12	PP
M.BOUR	79.47	280.1	11	45	-1	21	29	1				
PERTH	80.30	142.0	11	49	-1	21	36	-1			12 42	PP
MUNDARING	80.51	141.8	11	49	-2	21	34	-5				
GRAHAMSTOWN	80.59	216.0	11	51K	0							
SITKA	84.32	13.8	12	11	0	22	16	-1	13	7	15 28	PP
PORT MORESBY	85.10	105.4	12	14K	0	22	22	-3			13 10	
HERMANUS	85.12	220.2				22	24	-1			22 19	SKS
RABAUL	85.92	98.2	12	18	0						22 32	
HALIFAX	89.13	329.1	12	34K	0							
SHAWINIGAN	90.94	335.5	12	42	0							
CHARTERS TS.	91.03	114.2	12	42	-1	22	49	-31				
BREBEUF	92.14	335.5	12	48A	0	22	48	-41	13	42	16 32	PP
BANFF	92.56	3.7	12	49	-1							
ALBERNI	93.56	9.9	12	54	0							
PENTICTON	94.11	6.5	12	56A	-1							
VICTORIA	94.48	9.1	12	59A	1							
HONIARA	95.22	97.8	13	0	-2	23	53	37				
ADELAIDE	95.39	129.9	13	4	1	23	56	39			16 55	PP
HUNGRY HORSE	95.45	2.9	13	3	0	23	16	-2				
SEATTLE	95.48	8.5	13	5	2						23 22	
PALISADES	96.20	333.6	13	6A	0				14	23		
FORDHAM	96.33	333.5	13	6	-1	23	19	-3				
PENNSYLVANIA	97.74	336.2	13	13K	0							
BUTTE	97.83	2.0	13	14	0	23	29	-1			17 9	PP
BOZEMAN	98.21	1.0	13	16	1	23	29	-3			17 17	PP
CLEVELAND	98.24	339.0	13	14K	-2							
WASHINGTON	99.18	334.8	13	16	-4							
GEORGETOWN	99.18	334.8	13	19	-1							
CHICAGO JSA.	99.43	343.5	13	22	1							
MORGANTOWN	99.46	337.2	13	22	1							
RAPID CITY	99.59	355.3	13	23	1	24	37	58	14	13	17 26	PP
BRISBANE	100.17	116.4	13	24	0	24	34	52				
CANBERRA	102.19	124.9	13	32	-1	23	48	-4			17 42	PP
LARAMIE	102.49	356.9	13	35	0						17 33	
CHAPEL HILL	102.54	335.0	13	35	0							
MINERAL	102.75	9.3	13	35A	-1							
RIVERVIEW	102.76	122.6				23	53	-1			18 13	PP
FLAMING GRGE	102.95	359.8	13	36	-1	23	54	-1	14	20	17 43	PP
FLORISSANT	102.99	344.6	13	36A	-1	25	0	65				
ST. LOUIS 1	103.12	344.5	13	38	1							
DUGWAY	103.63	2.5	13	40	0						25 33	
UKIAH	103.72	10.8	17	1	201							
MANHATTEN	103.72	349.6	13	40	0	25	6	67				
RENO	103.77	8.1	13	40	0							
MAWSON	103.92	182.9	13	40A	-1	23	57	-3	14	37	17 58	PP
ROLLA	104.18	345.6	13	43	1	25	9	68				
EUREKA	104.18	5.0	13	43	1						34 33	
MIRNY	104.18	170.8	13	44	2	23	56	-5	14	35	18 45	PP
PRICE	104.27	0.9	13	44	2							
CALISTOGA	104.30	10.4	14	7A	24							
TARRALEAH	104.69	131.9									17 59	
COLUMBIA	104.96	335.7	13	46	1	23	58	-6			18 8	PP
BERKELEY	105.10	10.3	13	46A	777	24	8	3			18 10	PP
MOORLANDS	105.21	131.7									18 2	PP
FORT NELSON	105.59	132.0									18 0	PP
LICK	105.71	9.9	13	51K	777						17 3	
FAYETTEVILLE	106.37	347.0	13	52	777	25	47	97			19 5	PP
KIPAPA	106.50	46.6	14	8	777						18 5	PP
HONOLULU	106.54	46.7	13	53	777	24	17	6	15	10	18 20	PP
TULSA	106.82	348.3	13	54	777	24	10	-2			18 11	PP
GLEN CANYON	106.89	1.6	17	5	777							
PRIEST	107.02	9.3	13	56A	777							
WILKES	107.05	164.2	14	48	777	24	11	-2			29 38	PKKP
BOULDER CITY	107.74	4.4	14	0	777	24	19	3			18 17	PP
WICHITA MTS.	108.41	350.4	14	1	777	24	16	-3	14	56	15 26	PP
ALBUQUERQUE	108.86	357.2	14	3	777						18 32	PP
PASADENA	109.28	7.5	14	6	777	24	25	2	14	55	18 37	PP
HAWAII V.OB.	109.65	45.7	17	58	777							
HOUSTON	112.79	346.6	14	25	-228							
TRINIDAD	114.75	306.1	14	32	-224						19 12	
SUVA	114.91	94.7									26 45	

DUMONT	115.57	155.5	18	17	-1	24	42	-6			
CARACAS	118.36	310.7	18	23K	0	24	56	-2			
AFIAMALU	120.49	84.9	18	29	1						
ROXBURGH	120.61	126.1	18	28	0	25	6	1			20 28 PP
KAIMATA	120.88	122.3	18	29	1						
CORB RIVER	121.22	120.3	18	28	-1						
TARATA	121.64	117.7	18	28	-2						
KARAPIRO	121.97	115.9	18	29	-1						19 28 PP
GEBBIES PASS	122.16	123.2	18	34	3						
CHATEAU	122.47	117.3	18	29	-2						
WELLINGTON	122.72	119.8	18	31K	-1						20 28 PP
TUAI	123.48	116.3	18	32	-1						
SOUTH POLE	126.31	180.0	18	38	-1						
SCOTT BASE	126.71	164.8	18	36	-4						
BOGOTA	127.29	313.2	18	44	3						20 41 PP
CAPE HALLETT	127.30	157.7	18	43	2						
CHINCHINA	127.91	315.0	18	43	1						20 47 PP
BYRD STATION	136.18	177.5	18	29	-28						
HUANCAYO	140.70	299.4	19	*	-3						
ARGENTINE I.	140.84	208.3	19	1	-5						20 44
ANTOFAGASTA	143.98	279.6	19	10	-2						
SANTA LUCIA	148.03	263.8	19	20A	2						20 18

JULY 7 6.H 12.M 47.S EPICENTRE 51.42 178.77 DEPTH= 40.KM

A=-0.62602 B= 0.01349 C= 0.77969 D= 0.0215 E= 0.9998
G=-0.7795 H= 0.0168 K=-0.6262 HT= -5.9

DEPTH OF FOCUS= 0.001R

SE= 2.71

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PETROPAVLOVK	12.44	285.3	2	55K	-2	5	9	-6				
MAGADAN	17.70	308.2	4	8A	3						4	33 PP
COLLEGE	21.84	39.2	4	51	0	8	29	-15				
Y.-SAKHLINSK	23.79	273.6	5	11A	1	9	26	7				
SITKA	27.00	59.9	5	38	-2							
YAKUTSK	28.22	311.1	5	52A	1	10	34	1			6	42 PP
MIZUSAWA	28.87	259.7	5	57	0	10	47	4				
TIKSI	29.85	330.8	6	6A	0						9	4
MATUSIRO	32.29	258.6	6	25A	-2	11	38	1				
VLADIVOSTOK	32.38	273.9	6	31A	3	11	43	5			7	39 PP
MOULD BAY	34.14	22.1	6	44A	1							
KIPAPA	34.99	140.2	6	50	0							
ABUYAMA	35.01	258.8	6	50A	-1							
HONOLULU	35.06	140.4	6	50	-1						7	55 PP
ALBERNI	35.31	70.7	6	53	0							
CHANGCHUN	36.11	279.4	6	58	-2							
VICTORIA	36.47	71.2	7	3	0							
SEATTLE	37.54	71.9	7	15	3	13	11	13				
PENTICTON	38.34	68.1	7	18A	-1							
BANFF	39.82	63.6	7	30	-1							
RESOLUTE	40.34	24.2	7	36	1						9	38 PCP
UKIAH	41.58	83.7	7	48	3							
MINERAL	41.86	81.2	7	49A	1							
HUNGRY HORSE	42.04	66.7	7	50	1	14	7	2				
CALISTOGA	42.27	83.9	7	52A	1							
ALERT	42.85	9.8	7	59A	3	14	21	4				
BERKELEY	42.94	84.5	7	53	-4	14	18	0				
RENO	43.45	80.9	8	2	1							
LICK	43.66	84.7	8	3A	1							
PEKING	43.88	280.4	8	4A	0	14	36	4	8	15		
IRKUTSK	44.09	301.7	8	6A	0	14	40	5			9	50 PP
BUTTE	44.11	68.8	8	5	-1	14	35	0				
ULAN-BATOR	44.92	295.1	8	13A	0	14	53	6				
BOZEMAN	45.19	68.4	8	15	0							
THULE	45.58	17.7	8	18	0						9	53 PP
EUREKA	45.85	78.4	8	21	1							
ZO-SE	46.48	267.1	8	25A	0	15	14	5	8	37		
GUAM	46.75	228.4	8	34	7							
NORD	46.96	3.1	8	23	-4							
PAOTOW	47.30	285.0	8	31A	0	15	27	6	8	43		
NANKING	47.33	270.0	8	31A	-1	15	24	3	8	42		
DUGWAY	47.34	75.6	8	32A	0	15	26	4			9	36
SALT LAKE C.	47.57	74.4	8	34	1							

PASADENA	47.86	85.6	8 35	-1	15 31	2		
BOULDER CITY	48.75	81.3	8 42	-1				
PRICE	48.92	74.9	8 45A	1				21 19
FLAMING GRGE	48.95	72.7	8 43	-1				
GLEN CANYON	50.11	78.1	8 53	0				
RAPID CITY	50.65	65.8	8 57	0	16 8	0		
AMDERMA	50.82	336.4	9 0A	2	16 16	6		
ESEN BULAK	51.74	299.1	9 1A	-4	16 32	9		
SIAN	52.01	279.4	9 7A	0	16 19	-8		
LANCHOW	53.93	284.5	9 21A	-1	16 56	3	9 33	
ALBUQUERQUE	54.57	76.6	9 27	1	17 5	4		20 33 SS
CANTON	57.06	266.3	9 44A	0	17 39	5	9 55	
SEMIPALATNSK	57.33	311.2	9 45A	-1	17 40	2		
CHENGTU	57.49	279.6	9 46A	-1	16 41	-59	10 57	
SCORESBY SD.	57.49	8.1	9 48	1	17 46	6		
MANHATTEN	57.58	66.4	9 46	-2	17 41	0		
BAGUIO CITY	57.60	255.0			17 43	2		
TROMSOE	58.36	351.8	9 53	0				
APATITY	58.53	345.2	9 53A	-2	17 52	-2		10 44 PCP
MANILA	58.66	253.3	9 53	-2	17 53	-2		
WICHITA MTS.	59.46	71.5	10 1	0	18 4	-2		12 6 PP
SODANKYLA	59.69	347.9	10 2	-1				10 49 PCP
KIRUNA	59.97	350.7	10 3A	-2	18 15	3		12 15 PP
TULSA	60.29	68.7	10 6	-1	18 31	15		
SVERDLOVSK	60.72	326.2	10 11K	1				12 25 PP
FAYETTEVILLE	61.09	67.5	10 11A	-1				20 17 SCS
ROLLA	61.14	64.6	10 11A	-2	18 29	2		
FLORISSANT	61.37	62.9	10 12	-2				
ST. LOUIS 1	61.56	62.9	10 13	-2				
KUNMING	62.21	276.1	10 19A	-1	18 43	2	10 30	
KAJAANI	62.64	346.1	10 22K	-1				11 2 PCP
HONIARA	62.75	201.0	10 27	4	18 47	-1		
REYKJAVIK	63.67	9.9	10 31K	2			10 39	10 45 *SP
UMEA	63.88	349.6	10 29A	-2				39 19 PKPPKP
SIDA	64.39	8.2	10 36K	2			10 50	
SHAWINIGAN	64.70	46.4	10 34	-2				
SKALSTUGAN	64.85	353.4	10 36A	-1				39 20 PKPPKP
BREBEUF	65.10	47.6	10 37K	-2			10 51	
FRUNSE	65.45	308.3	10 42A	1				
LHASA	66.09	287.9	10 46A	1	19 34	5		
PULKOVO	66.27	343.2	10 45A	-1				13 4 PP
PORT MORESBY	66.44	214.4	10 57K	10	19 23	-10		
NURMIJARVI	66.49	346.4	10 47	0	19 43	9		20 41 SCS
PENNSYLVANIA	66.57	53.6	10 47A	-1				
HELSINKI	66.77	346.1	10 48	-1				
UPPSALA	68.04	349.9	10 57A	0	19 52	0	11 10	20 26 PS
PALISADES	68.37	51.0	10 54	-5	19 57	1		
WASHINGTON	68.40	54.5	11 1	2				
MOSCOW	68.46	337.6	11 0	0				20 16 PS
SHILLONG	68.57	284.3	11 0A	-1				
TASHKENT	69.18	310.6	11 5	1	20 10	4		11 32 PCP
SUVA	69.27	180.3						20 30 PS
CHAPEL HILL	69.63	57.8	11 7	0				
COLUMBIA	70.01	60.5	11 10	1	20 21	5		
HALIFAX	70.22	42.2	11 13	2				
CHATRA	70.46	288.6	11 13A	1	20 30	9		
GOTEBORG	70.70	352.5	11 13A	-1			11 25	13 52 PP
CHITTAGONG	70.99	282.1	11 11	-4				
KHOROG	71.05	306.5	11 17	1	20 33	5		
ABERDEEN	71.77	0.5			20 37	1		25 18 SS
KARLSKRONA	71.89	350.2	11 15A	-6				
COPENHAGEN	72.66	351.9	11 26A	1	20 51	5		
DEHRA DUN	73.08	297.4	11 26	-2	20 55	4		
WARSAK DAM	73.74	304.2	11 31A	-1				
DURHAM	74.18	0.2	11 33	-1	21 19	16		
NOUMEA	74.19	191.8	11 46A	12				
NEW DELHI	74.89	296.8	11 36A	-2				
WITTEVEEN	75.92	355.1	11 46	2				
CHARTERS TS.	76.70	211.3	11 47	-2				
DE BILT	76.71	355.9	11 51	2	21 29	-2		
LWOW	76.87	343.5	11 50A	1				14 46 PP
ASHKABAD	76.89	315.6	11 50	0				14 41 PP
COLLMBERG	76.95	350.9	11 50A	0				
KRAKOW	77.31	346.2	11 53	1	21 43	5		
JENA	77.45	351.7	11 52	-1	20 58	-41		14 40 PP
KEW	77.48	359.4	11 54	1	21 40	1		27 2 SS
RACIBORZ	77.53	347.3	11 55	2				16 39 PPP
BENSBERG	77.75	354.6	11 55	1				

PRAGUE	78.01	349.8	11	59	3					23	18	
DOURBES	78.74	356.2	11	55	-5	21	56	3				
TIFLIS	78.96	326.7	12	3	2	22	4	9		15	2	PP
KASPERSKE H.	79.03	350.1	12	2A	1					14	51	PP
SIMFEROPOL	79.26	335.3	12	3A	0					12	11	PCP
BRATISLAVA	79.55	347.6	11	58K	-6					12	40	
VIENNA-H.	79.57	348.1	12	7	3	22	13	11				
STUTTGART	79.78	353.0	12	6	1	22	6	2				
STRASBOURG	80.08	353.9	12	8	1	22	8	1		15	4	PP
PARIS	80.10	357.5	12	9	2							
FOLINIERE	80.19	359.5	12	8	0							
MEDAN	81.03	264.5	11	11K	-61							
BESANCON	81.51	355.0	12	15	0							
GARCHY	81.61	357.0	12	16	1	22	35	12		12	59	
TEHERAN	81.71	319.2	12	18	2	22	35	11	15 25			
BRISBANE	81.74	203.2	12	21	5	22	27	3				
LJUBLJANA	81.96	349.0	12	19	2					15	11	PP
ZAGREB	82.01	347.9	12	13	-4							
TRIESTE	82.45	349.5	12	21	2	22	40	9				
PADOVA	82.89	350.7	12	31	9	23	13	37		13	23	
ROSELEND	83.03	354.5	12	19	-3							
CLERMONT-FD.	83.12	356.9	12	24	1							
BLACK RIVER	84.16	68.5	12	28	0							
ISTANBUL KA.	84.17	337.4	12	29	1							
FLORENCE X.	84.56	351.0	12	40A	10	23	21	28		24	28	PS
POONA	84.64	292.9	12	25A	-6	23	9	16		22	55	SKS
HOPE	84.81	67.7	12	33	2							
BAGNERES	85.88	359.0	12	35	-2							
ROME	86.29	349.8	12	40A	1	23	14	5		24	27	PS
SHIRAZ	86.48	315.3	12	40A	0	23	4	-7		16	2	PP
RIVERVIEW	88.29	202.7	12	49A	1	23	31	3	12 57	23	14	SKS
ATHENS	88.34	340.5	12	48A	-1							
COIMBRA	88.54	5.5	12	51K	1							
PONTA DELGDA	88.67	19.2	12	51	1							
KARAPIRO	89.02	182.6	12	50	-2							
TOLEDO	89.04	2.2	12	53A	1	23	32	-3		16	28	PP
KSARA	89.07	329.8	12	52A	0	23	46	11		16	24	PP
MESSINA	89.55	346.8	12	56	2					19	14	
CANBERRA	90.24	204.0	12	57	-1	23	37	-9	13 9			
SAN JUAN	90.46	59.3	12	59	0				13 11			
GRANADA	91.75	1.9	13	22K	17	24	10	10		16	55	PP
MALAGA	92.19	2.5	13	6	-1					16	47	PP
WELLINGTON	92.39	183.0				23	41	-24		33	13	SSS
ADELAIDE	92.93	211.9	13	9	-1	24	10	0		30	24	SS
MELBOURNE	93.68	206.2	13	25	12							
CHINCHINA	95.79	74.7	13	27	4	24	0	5				
CARACAS	96.45	64.4	13	27K	1	24	48	50				
ROXBURGH	96.86	186.7				24	7	7				
BOGOTA	97.00	73.6	13	31	2	24	3	2				
TRINIDAD	99.38	59.8	13	40K	1							
DUMONT	121.38	197.0	18	59	10							
CAPE HALLETT	123.58	183.1	19	0	7							
LWIRO	124.90	322.4								13	59	
SANTA LUCIA	127.72	99.3	19	1	0							
WILKES	128.29	208.5	19	0	-2					37	55	SS
SCOTT BASE	129.22	183.3	19	4	0					22	24	
TANANARIVE	129.93	291.8	19	8	3							
MIRNY	134.11	213.8	19	12	-1					22	50	PKS
BYRD STATION	135.72	167.3	18	46	-30							
BULAWAYO	141.00	312.0	19	19	-7							
SOUTH POLE	141.23	180.0	19	20	-6							
BANDEIRA	141.74	336.9	19	25A	-2					22	31	PP
MAWSON	145.58	217.6	19	31A	-3	26	35	-2	19 54	22	46	PP
ARGENTINE I.	145.77	138.2	19	35	1							

JULY 8 3.H 22.M 5.S EPICENTRE 51.38 178.79 DEPTH= 67.KM

A=-0.62659 B= 0.01327 C= 0.77924 D= 0.0212 E= 0.9998
G=-0.7791 H= 0.0165 K=-0.6267 HT= -5.9

DEPTH OF FOCUS= 0.005R

SE= 1.78

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PETROPAVLOVK	12.46	285.4	2	55A	-1							

MAGADAN	17.74	308.3	4	6	2	7	27	11		
KURILSK	21.36	265.4	4	41K	-2	8	38	7		
COLLEGE	21.87	39.1	4	49	1					
Y.-SAKHLINSK	23.81	273.7	5	8K	1	9	23	8		
YAKUTSK	28.26	311.2	5	48K	-1	10	35	7		
VLADIVOSTOK	32.40	273.9	6	23K	-2	11	37	3		
MOULD BAY	34.18	22.1	6	42K	1					
KIPAPA	34.95	140.2	6	47	0					
ABUYAMA	35.01	258.9	6	47K	-1					
HONOLULU	35.02	140.4	6	52	4	12	31	17		
ALBERNI	35.31	70.7	6	51	1					
CHANGCHUN	36.13	279.5	6	57	0	12	35	4		
VICTORIA	36.47	71.2	7	0	0					
HAWAII V.OB.	37.86	137.7	7	11	-1					
PENTICTON	38.34	68.1	7	15	-1					
BANFF	39.83	63.6	7	28	0					
RESOLUTE	40.37	24.2	7	33K	0					9 35 PCP
MINERAL	41.86	81.1	7	46K	1					
HUNGRY HORSE	42.04	66.7	7	46	0					
CALISTOGA	42.26	83.8	7	49K	1					
ALERT	42.89	9.8	7	55K	2					
BERKELEY	42.93	84.5	7	54K	0	14	26	13		
RENO	43.44	80.9	7	59	1					
LICK	43.65	84.7	8	0K	1					
PEKING	43.90	280.5	8	1	0	14	32	5		
ULAN-BATOR	44.95	295.2	8	10K	0	14	48	5		
PRIEST	45.01	85.3	8	11K	1					
BOZEMAN	45.19	68.4	8	13	1					
THULE	45.61	17.7	8	14	-1					
EUREKA	45.85	78.4	8	18	1					
ZO-SE	46.49	267.2	8	22K	0	15	9	5		
PAOTOW	47.32	285.1	8	29K	0	15	23	7		
DUGWAY	47.34	75.6	8	29K	0					9 21
NANKING	47.34	270.0	8	28K	-1	15	20	4		
SALT LAKE C.	47.57	74.4	8	31	0					
PASADENA	47.85	85.6	8	32	-1	15	32	8	8 42	
BOULDER CITY	48.74	81.3	8	40	0					
PRICE	48.91	74.9	8	42	1					
FLAMING GRGE	48.95	72.7	8	41	0					
RAPID CITY	50.65	65.7	8	54	0					9 24
AMDERMA	50.86	336.5	8	57A	1					
ESEN BULAK	51.77	299.1	9	2K	-1	16	26	8		
SIAN	52.03	279.4	9	4K	-1	16	25	3		
TUCSON	53.69	82.1	9	17	0					
TUCSON TELE.	53.70	81.9	9	17	0				9 41	10 22 PCP
LANCHOW	53.96	284.6	9	18K	-1	16	51	3		
ALBUQUERQUE	54.57	76.6	9	23	0					
CANTON	57.07	266.3	9	40K	-1	17	30	1		
CHENGTU	57.51	279.7	9	43	-1	17	38	3		
MANHATTEN	57.58	66.4	9	43	-2					
TROMSOE	58.41	351.9	9	49	-2					
APATITY	58.57	345.2	9	57	5	17	58	9		
WICHITA MTS.	59.46	71.5	9	58	0	18	10	10		11 57 PP
SODANKYLA	59.73	347.9	9	59	-1					10 45 PCP
KIRUNA	60.01	350.7	10	0	-2				10 16	39 21 PKPPKP
TULSA	60.29	68.7	10	3	-1					
SVERDLOVSK	60.77	326.3	10	8A	1	18	28	11		
ROLLA	61.14	64.6	10	8	-2	18	11	-11		
FLORISSANT	61.38	62.9	10	9	-2					
ST. LOUIS 1	61.57	62.9	10	11	-1					
KUNMING	62.23	276.1	10	16K	-1	18	40	4		
KAJAANI	62.69	346.2	10	20	0	19	0	19		39 15 PKPPKP
BLOOMINGTON	63.23	60.2	10	23	0	18	52	4		
REYKJAVIK	63.70	10.0	10	28	1					
UMEA	63.92	349.6	10	28	0					39 11 PKPPKP
SHAWINIGAN	64.72	46.4	10	31	-2					
SKALSTUGAN	64.90	353.4	10	33	-1					39 4 PKPPKP
BREBEUF	65.12	47.6	10	34	-2					
FRUNSE	65.48	308.4	10	39K	1					
LHASA	66.12	287.9	10	42	0	19	29	5		
PORT MORESBY	66.42	214.4	10	41K	-3					
NURMIJARVI	66.54	346.4	10	43	-2					39 11 PKPPKP
PENNSYLVANIA	66.58	53.6	10	44A	-1					
HELSINKI	66.82	346.1	10	46	-1					39 12 PKPPKP
UPPSALA	68.08	349.9	10	53	-1					39 3 PKPPKP
MOSCOW	68.50	337.6	10	57	0	19	55	3		
FORDHAM	68.53	51.1	10	56	-1	19	54	1		
SHILLONG	68.60	284.4	10	56K	-2					
TASHKENT	69.21	310.6	11	2K	1	20	9	8		

HALIFAX	70.24	42.3	11 6	-2				11 39	
GOTEBORG	70.75	352.5	11 7	-4					
CHITTAGONG	71.01	282.1	11 11	-2					
KHOROG	71.08	306.6	11 15	2				11 39	
KARLSKRONA	71.93	350.2	11 14	-4			11 28	11 52	
DEHRA DUN	73.12	297.4	11 25	0					
WARSAK DAM	73.77	304.3	11 29	0					
NEW DELHI	74.92	296.8	11 32K	-3					
CHARTERS TS.	76.67	211.3	11 44K	-1					
KIZYL-ARVAT	76.78	317.7	11 49K	3	21 38	12			
MAKHACH-KALA	76.96	325.5	11 47	0	21 37	9			
COLLMBERG	76.99	350.9	11 47	0				12 15	
JENA	77.49	351.7	11 50	0					
PRUHONICE	78.13	349.7	11 54K	1					
UZHGOROD	78.36	344.3	11 56	1					
KISHINEV	78.63	339.5	11 56	0	21 51	5			
DOURBES	78.78	356.2			21 52	4			
TIFLIS	79.00	326.7	12 0	2	22 1	11			
KASPERSKE H.	79.08	350.2	11 59	1				15 32 PP	
QUETTA	79.17	305.1	12 9	10					
BRATISLAVA	79.60	347.7	12 3	2				12 31	
STUTTGART	79.83	353.0	12 3	0					
STRASBOURG	80.12	354.0	12 5	1					
PARIS	80.14	357.5	12 5	1					
FOLINIERE	80.23	359.5	12 5	0					
BRISBANE	81.71	203.2	12 12	0					
TEHERAN	81.75	319.2	12 15	2	22 30	11			
ISOLA	84.55	354.0	12 30	3					
MONACO	84.98	353.7	12 31	2					
SHIRAZ	86.51	315.3	12 37K	0	23 19	13		16 8 PP	
KARAPIRO	88.98	182.6	12 47	-1			12 58		
TOLEDO	89.09	2.2	12 45	-4					
CANBERRA	90.21	204.0	12 54K	0			13 5		
SAN JUAN	90.47	59.3	12 57	2			13 9		
MALAGA	92.23	2.6						25 21 PS	
ADELAIDE	92.91	212.0	13 5	-2			13 18		
CARACAS	96.45	64.4	13 24	1					
LWIRO	124.94	322.4	18 55A	3					
SCOTT BASE	129.18	183.3	19 0	-1					
MIRNY	134.08	213.8	19 18	8					
BYRD STATION	135.68	167.3	19 5	-8					
BROKEN HILL	136.11	316.2	19 15	1					
ARGENTINE I.	145.73	138.2	19 27	-4					
PRETORIA	146.01	307.7	19 33	2					

JULY 8 7.H 31.M 11.S EPICENTRE 8.17 -38.19 DEPTH= 211.KM

A= 0.77807 B=-0.61210 C= 0.14124 D=-0.6183 E=-0.7859
G= 0.1110 H=-0.0873 K=-0.9900 HT= 6.8

DEPTH OF FOCUS= 0.028R

SE= 2.58

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
M.BOUR	21.70	71.6	4 36	2	8 35	19		
TRINIDAD	23.03	278.0	4 53	6				
BOGOTA	35.82	266.6	6 43	2	12 23	21		
CHINCHINA	37.30	267.5			12 44	19		
LA PAZ	38.45	230.3	7 2	-1	13 2	20		
BENI ABBES	40.15	52.2	7 17	0				8 53 PP
AREQUIPA	41.05	233.3	7 20	-4				
COIMBRA	41.49	35.0	7 4K	-24				
HUANCAYO	42.04	241.9	7 30	-2				
ALMERIA	43.19	43.2	7 42K	1				
FORDHAM	45.41	321.6	7 50	-9	14 44	21		
PENNSYLVANIA	47.90	319.2	8 19A	0				
BREBEUF	48.11	326.8	8 20	0				
BAGNERES	48.31	37.5	8 21	-1				
FOLINIERE	51.39	31.2	8 46	1				
CLERMONT-FD.	51.58	36.1	8 47	1				
BLOOMINGTON	53.09	313.5	8 58	1				
ISOLA	53.16	39.7	8 58	0				
KEW	53.20	28.7	8 57	-1				
BESANCON	54.05	35.9	9 4	0				
DOURBES	54.84	32.4	9 9	-1				

DURHAM	54.86	25.0	9	17A	7						
CHICAGO JSA.	54.94	316.1	9	11	0						
ST. LOUIS 1	55.62	311.6	9	16	0						
STRASBOURG	55.76	35.3	9	16	-1					21	16
FLORISSANT	55.77	311.7	9	15	-2	17	17	32			
ROLLA	56.64	310.2	9	22	-1	17	18	21			
STUTTGART	56.73	35.7	9	22	-2						
TRIESTE	58.08	40.6	9	33	0						
LJUBLJANA	58.73	40.4	9	37A	-1						
JENA	59.07	34.3	9	36	-4						
TULSA	59.13	307.0	9	40	0						
KASPERSKE H.	59.41	36.8	9	40	-2					10	29
LAWRENCE	59.46	310.6	9	41	-2						
COLLMBERG	60.04	34.4	9	46	-1						
MANHATTEN	60.52	310.5	9	42A	-8						
WICHITA MTS.	61.13	305.1	9	52	-2	18	17	22		12	3 PP
BRATISLAVA	61.17	38.9	9	52	-2						
BELGRADE	62.23	43.4	10	3K	2						
GOTEBORG	62.64	27.7	10	3	-1						
KARLSKRONA	63.62	30.3	10	4	-6						
SKALSTUGAN	65.91	22.2	10	25	0						
UPPSALA	66.26	27.1	10	26	-1						
RAPID CITY	66.46	314.6	10	28	-1						
ALBUQUERQUE	67.56	304.4	10	36	1						
LWIRO	67.60	95.8	10	35A	-1					12	55
UMEA	69.12	23.9	10	51	6						
NURMIJARVI	69.74	28.0	10	50	1						
HELSINKI	69.77	28.4	10	51	2						
FLAMING GRGE	70.49	310.5	10	53	0						
TUCSON TELE.	70.93	301.3	10	57	1						
KIRUNA	70.95	20.0	10	56	0						
TUCSON	71.02	301.2	10	58	2						
KAJAANI	72.27	24.9	11	4	0						
SODANKYLA	72.95	21.5	11	6	-2						
DUGWAY	73.03	309.5	11	10K	2						
BUTTE	73.32	315.5	11	11	1						
RESOLUTE	73.70	346.6	11	13A	1						
EUREKA	75.43	308.6	11	24	2						
BANFF	75.74	320.7	11	24	0						
WOODY	77.72	304.7	11	35	0						
PENTICTON	78.27	318.6	11	38	0						
MINERAL	79.75	309.5	11	48K	2						
LICK	79.90	306.5	11	50A	3						
MOULD BAY	80.00	346.1	11	48	1						
TEHERAN	84.95	54.8	12	16	4						
SHIRAZ	86.63	60.7	12	23	2						
COLLEGE	90.82	336.3	12	42	2						
MIRNY	112.98	160.9								21	55
CANBERRA	152.19	192.7	19	29A	6				19	41	

JULY 8 12.H 2.M 34.S EPICENTRE -21.48-179.80 DEPTH= 598.KM

A=-0.93138 B=-0.00325 C=-0.36404 D=-0.0035 E= 1.0000
G= 0.3640 H= 0.0013 K=-0.9314 HT= 4.3

DEPTH OF FOCUS= 0.089R

SE= 3.07

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PORT VILA	11.80	286.4									3	3
KARAPIRO	16.88	192.8	3	19	-7							
CHATEAU	18.11	191.7	3	31	-6							
WELLINGTON	20.27	191.9	3	59	2				7	0	-8	
GEBBIES PASS	23.03	194.1							7	53	0	
CANBERRA	30.57	236.4	5	25	-3							
CHARTERS TS.	31.73	266.3	5	38K	0							
MELBOURNE	34.44	233.9	5	58	-2							
ADELAIDE	38.67	240.5	6	32	-3							
MATUSIRO	70.02	325.0	10	16	2							
LICK	80.11	43.4	11	12A	2							
PASADENA	80.58	47.7	11	12	0							
MINERAL	81.93	41.0	11	21A	2							
TUCSON	84.84	52.6	11	35	2							
TUCSON TELE.	84.97	52.5	11	40	6							
EUREKA	84.99	44.2	11	35	1							

PENTICTON	88.41	34.6	11 52A	2		
ALBUQUERQUE	89.33	51.9	11 56	1		
COLLEGE	89.53	13.1	11 56	0		
FLAMING GRGE	90.06	45.5	11 58	0		
BULAWAYO	130.18	215.8				20 33 PP
SHIRAZ	132.44	291.0				20 43
NURMIJARVI	137.38	342.4	18 17	1		20 59 SKP
GOTEBORG	142.81	349.6	18 25	-2		
KARLSKRONA	143.53	345.5	18 26	-2		
COLLMBERG	148.60	344.5	18 42A	6	20 58	
PRUHONICE	149.38	341.7	18 45	8		
KASPERSKE H.	150.42	342.1	18 46	8	21 5	

JULY 10 5.H 12.M 6.S EPICENTRE -20.75-178.66 DEPTH= 577.KM

A=-0.93567 B=-0.02192 C=-0.35219 D=-0.0234 E= 0.9997
G= 0.3521 H= 0.0082 K=-0.9359 HT= 4.5

DEPTH OF FOCUS= 0.086R

SE= 2.49

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SUVA	3.77	312.8	1 19	-4	2 33	4		
AFIAMALU	9.45	45.1	2 14	0	4 1	1		
PORT VILA	12.66	281.5	2 48A	2	5 3	5		
NOUMEA	13.95	261.0	3 3	5	5 28	6		
KOUMAC	15.97	267.7	3 19	1	6 5	7		
ONERAHI	16.17	200.8	3 23	3				
KARAPIRO	17.84	195.1	3 37A	1			5 26	
TUAI	18.35	190.5	3 39	-2	6 35	-3		
CHATEAU	19.05	193.9	3 45	-2	6 58	8		
TARATA	19.33	196.5	3 51	1				
WELLINGTON	21.21	193.8	4 5	-2				
KAIMATA	23.26	198.8	4 33	7				
HONIARA	23.49	295.4	4 26	-2				
GEBBIES PASS	24.01	195.6	4 31	-1	8 3	-7		8 28
ROXBURGH	26.58	199.1	4 54	-1				7 31 *SP
CANBERRA	31.86	236.0	5 39K	-1				7 12 PP
CHARTERS TS.	32.85	264.8	5 49K	1	10 23	-4		
PORT MORESBY	34.81	283.7	6 4K	-1				
MELBOURNE	35.73	233.5	6 12	0				
MACQUARIE I.	37.74	201.3	6 30	1				
DARWIN	48.96	271.5	7 55	-1				
DUMONT	52.91	199.2	8 23	-2				
SCOTT BASE	57.58	183.6	8 57	0				
WILKES	63.49	205.2	9 34	-2				
BYRD STATION	64.50	170.5	9 41	-1				
MATUSIRO	70.04	324.1	10 15K	-1			12 19	
PRIEST	78.77	44.4	11 13A	8				
BERKELEY	78.78	42.2	11 6A	1				
LICK	78.85	43.0	11 6A	1				
CALISTOGA	79.05	41.4	11 7K	1				
PASADENA	79.31	47.3	11 9	1				
MAWSON	81.12	199.9	11 16A	-1			13 14	11 23 PCP
TUCSON	83.55	52.2	11 30	1				
TUCSON TELE.	83.68	52.1	11 26	-4				
EUREKA	83.72	43.8	11 30	0				
PENTICTON	87.21	34.2	11 46K	-1				
ALBUQUERQUE	88.04	51.5	11 51	0				
COLLEGE	88.59	12.6	11 51	-2			14 3	
WICHITA MTS.	93.83	54.4	12 17	0			14 29	
SODANKYLA	130.71	347.4	18 4	-2			20 35 SKP	
RULAWAYO	131.39	215.0					20 43 PP	
KIRUNA	131.42	350.5					20 37 SKP	
SHIRAZ	133.16	291.6					20 43	
KAJAANI	133.23	344.5	18 10	-1			20 44 SKP	
UMEA	135.11	348.3					20 49 SKP	
SKALSTUGAN	136.56	352.9	18 4	-13			20 53 SKP	
NURMIJARVI	137.00	343.3	18 14	-4			20 56 SKP	
HELSINKI	137.20	342.8	18 16	-2			20 56 SKP	
UPPSALA	139.25	347.5	18 14	-8			21 1 SKP	
KARLSKRONA	143.08	346.7	18 25	-5				
DURHAM	145.96	3.0	18 36K	2				
KSARA	146.82	300.4	18 39	4				
RACIBORZ	147.83	339.5					18 40 PKP2	

JENA	148.82	347.5	18	38	0			21	3	22	36 PP
PRUHONICE	149.00	343.4	18	44K	6					21	6 PP
KEW	149.31	2.0	18	43	4						
BRATISLAVA	149.84	338.8	18	46	6					21	10 PP
KASPERSKE H.	150.04	343.8	18	46	6			21	8		
STUTTGART	151.33	349.0	18	42	0					18	59
PARIS	151.99	358.4	19	3	20						
FOLINIERE	152.00	2.6	18	50	7						
LJUBLJANA	152.55	339.9	18	44	0					21	53 PP
TRIESTE	153.15	340.5	18	47	2					19	8 PKP2
GARCHY	153.50	357.4	18	54	9			21	26		

JULY 11 1.H 4.M 1.S EPICENTRE 31.97 67.25 DEPTH= 34.KM

A= 0.32867 B= 0.78381 C= 0.52690 D= 0.9222 E=-0.3867
G= 0.2038 H= 0.4859 K=-0.8499 HT= 1.2

DEPTH OF FOCUS= 0.000R

SE= 2.69

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
QUETTA	1.80	188.3	0	27	-3	0	53	1					
WAPSAK DAM	4.14	59.6	1	4A	1								
LAHORE	6.04	92.1	1	27	-3	2	29	-10					
KHOROG	6.53	31.5	1	39	2	2	56	5					
DUZHANBE	6.70	10.3	1	42A	3	3	0	5					
NEW DELHI	9.24	108.9	2	9K	-5	3	58	0					
DEHRA DUN	9.40	97.3	2	11	-6	3	54	-8			2	25	PPP
ASHKABAD	9.43	311.7	2	18	1						5	13	
TASHKENT	9.47	9.3	2	17K	-1	4	2	-2			5	42	
SEHORE	12.36	132.8				5	2	-12			7	40	
SHIRAZ	12.87	263.5	2	57A	-7						4	24	
TEHERAN	13.71	290.2	3	13	-2	5	57	10					
BOMBAY	13.95	157.6				5	42	-10			4	40	
POONA	14.65	154.5									4	54	
HYDERABAD	17.67	142.4	4	7	1	7	43	24					
CHATRA	18.09	101.3	4	10	-1	7	44	16					
BOKARO	18.27	111.7	4	18	5	7	45	12			4	35	PP
GORIS	18.55	299.7	4	14K	-2	7	46	7			4	34	PP
VISHAKHAPTNM	20.29	130.6	4	38	2	8	23	6					
TIFLIS	20.38	304.8	4	37	0						5	4	PP
LHASA	20.56	90.3	4	38A	-1	8	26	4					
SEMIPALATNSK	20.79	23.9	4	41	0	8	30	4					
CALCUTTA	20.97	111.4				8	37	7					
MADRAS	22.30	144.9	4	54	-2	8	59	5			5	20	PP
SHILLONG	22.48	100.2	4	55K	-3	9	2	4					
SVERDLOVSK	25.28	351.5	5	24A	-1	9	51	5					
KSARA	26.36	282.5	5	38	3	10	18	14			11	21	SS
ESEN BULAK	26.52	48.7	5	36	-1						10	7	
LANCHOW	30.48	72.2	6	12	0	11	15	5					
MOSCOW	31.52	327.7	6	21	-1	11	30	4			7	35	PP
KUNMING	31.81	93.3	6	26	2								
ULAN-BATOR	33.89	50.3	6	33	-9								
ADDIS ABABA	34.91	235.4	6	58	7								
PAOTOW	35.26	63.7	6	54	0								
ATHENS	35.92	291.9	6	57K	-2						12	36	
PULKOVO	37.04	329.7	7	12	3	12	58	6			8	44	PP
AMDERMA	37.98	356.9	7	17	0	13	11	5					
SKALNATE PL.	38.93	310.2	7	29	4						10	11	
WARSAW	39.01	315.1									17	42	SCS
KRAKOW	39.26	311.5				13	25	-1					
BUDAPEST	39.54	307.4	7	35	5						13	32	PS
HELSINKI	39.58	328.1	7	30	0								
NURMIJARVI	39.87	328.5	7	34	2								
PEKING	39.97	64.3	7	33	0								
RACIBORZ	40.37	311.3	7	31	-6						13	33	PCS
KAJAANI	40.42	334.4	7	36	-1								
APATITY	40.74	340.9	7	39A	-1	13	50	2			9	14	PP
BRATISLAVA	40.89	308.3	7	43	2						10	37	
VIENNA-H.	41.38	308.3	7	45	0								
MESSINA	42.31	293.3	7	53	0	14	15	4			17	13	SS
LJUBLJANA	42.56	305.0	7	55	0						9	49	
SODANKYLA	42.65	338.2	7	54	-1						9	32	PP
PRUHONICE	42.70	310.8	7	59	3						9	33	PP
PRAGUE	42.79	310.9	8	3	7								

UPPSALA	42.88	325.6	7	57	0	14	17	-2	9	28 PP
KARLSKRONA	42.97	319.9	7	56	-2					
TRIESTE	43.10	304.4	8	2	3					
UMEA	43.17	331.7	8	3	3				17	28 SS
KASPERSKE H.	43.28	309.5	8	1	0				11	25
COLLMBERG	43.79	312.6	8	4	-1				10	43
ROME	44.23	299.0				14	22	-17	8	26 PP
JENA	44.66	312.0	8	11	-1	14	47	2	18	4 SS
KIRUNA	44.91	336.9	8	12	-2				10	1 PP
FLORENCE X.	44.97	301.8				14	40	-10	8	29 PP
ZO-SE	45.57	76.2	8	17	-2					
STUTTGART	46.11	308.9	8	22	-1				18	29 SS
TROMSOE	46.26	338.8	8	23	-1					
SKALSTUGAN	46.41	329.6	8	25	-1					
STRASBOURG	47.11	308.7	8	29	-2				21	25
WITTEVEEN	47.77	314.4	8	37	1					
ROSELEND	48.08	304.8	8	37	-2					
KHEYS	48.90	358.0	8	46	1	15	50	5	10	42 PP
YAKUTSK	49.47	33.4	8	47A	-2	15	54	1		
LWIRO	49.87	234.4	8	55	3					
GARCHY	50.36	307.3	8	56	0				11	0
PARIS	50.59	309.3	8	57	-1					
TIKSI	51.11	21.0	9	1K	-1	16	19	3	10	23 PCP
KEW	52.12	312.9	9	12	3					
FOLINIERE	52.54	309.5	9	11	-2					
DURHAM	52.61	317.1				16	34	-2		
ABERDEEN	52.76	320.2							23	22
TOLEDO	56.89	299.5	9	43	-1	17	42	8		
GRANADA	57.33	296.3							16	2
MATUSIRO	57.61	64.4	9	46	-3				22	8 SS
MALAGA	58.09	296.0	9	54	1					
ALERT	63.20	353.5	10	27	-1					
BULAWAYO	63.68	220.9	10	29	-2					
PETROPAVLOVK	65.96	41.4				19	29	0		
MOULD BAY	71.98	1.7	11	21	-1					
KIMBERLEY	72.64	218.4	11	26	0					
COLLEGE	79.67	14.4	12	5	-1				15	24 PP
CHARTERS TS.	91.58	112.6	13	5	0					
WICHITA MTS.	112.34	347.4	18	36	3				19	21 PP

JULY 11 7.H 17.M 27.S EPICENTRE 53.12 159.56 DEPTH= 75.KM

A=-0.56473 B= 0.21052 C= 0.79797 D= 0.3493 E= 0.9370
G=-0.7477 H= 0.2787 K=-0.6027 HT= -6.6

DEPTH OF FOCUS= 0.007R

SE= 1.36

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PETROPAVLOVK	0.56	259.7	0	16K	0	0	27	-1				
MAGADAN	8.07	326.5	2	1	4							
Y.-SAKHLINSK	12.41	247.3	2	55	-1							
YAKUTSK	18.15	311.1	4	10A	1							
MATUSIRO	22.31	230.5	4	54A	1	9	4	16				
TIKSI	22.91	335.4	5	0A	2							
COLLEGE	28.62	45.1	5	52	0							
MOULD BAY	37.15	23.1	7	6A	0							
ALERT	42.95	7.4	7	55A	1							
AMDERMA	43.99	330.3	8	2	0							
PENTICTON	48.22	60.0	8	35	0							
HUNGRY HORSE	51.71	58.0	9	2	0							
SVERDLOVSK	52.03	316.5	9	5	1							
MINERAL	52.86	70.1	9	10A	-1							
TROMSOE	54.24	344.1	9	20	-1							
SODANKYLA	54.76	339.7	9	23	-2							
LICK	54.89	72.9	9	30A	4							
KIRUNA	55.58	342.5	9	30	-1							
EUREKA	56.62	67.3	9	38	0							
KAJAANI	57.31	337.1	9	43	0							
RABAUL	57.45	188.7	9	43	[illegible]							
WOODY	57.63	72.4	9	44	-1							
DUGWAY	57.85	64.7	9	47A	0							
RAPID CITY	60.11	55.6	10	3	1							
SKALSTUGAN	60.87	343.9	10	7	0							

NURMIJARVI	61.12	336.4	10	9	0			
HELSINKI	61.34	336.1	10	11	0			
UPPSALA	63.30	339.6	10	23	-1			
TUCSON	64.71	69.6	10	33	0			
ALBUQUERQUE	65.12	64.6	10	36	0			
MANHATTEN	67.04	55.0	10	46	-2			
WICHITA MTS.	69.49	59.4	11	3	0	39	2	PKPPKP
TULSA	69.99	56.7	11	5	-1			
TIFLIS	70.12	313.7	11	9	2			
FLORISSANT	70.35	51.2	11	7	-1			
ST. LOUIS 1	70.54	51.2	11	9	0			
SHAWINIGAN	71.14	35.3	11	13	0			
OREBFUF	71.75	36.4	11	16K	0			
BLOOMINGTON	71.81	48.4	11	15	-2			
COLLMBERG	72.22	338.7	11	20	1	11	38	PCP
PRUHONICE	73.10	337.2	11	26	2	12	7	
CHARTERS TS.	73.81	193.0	11	29	0	11	44	
KASPERSKE H.	74.12	337.5	11	33	3			
SHIRAZ	76.17	301.0	11	43A	1	12	24	
PARIS	76.60	344.6	10	47	-57			
LJUBLJANA	76.78	335.8	11	47A	1	12	8	
GARCHY	77.99	343.9	11	54A	2			
ROSELEND	78.87	341.0	11	59	2			
ATHENS	81.54	326.2	12	12K	1			
TOLEDO	86.29	347.4	12	37K	2			
MAWSON	139.81	216.1	19	24	4	19	35	
BYRD STATION	140.28	164.4	19	15	-6			
SOUTH POLE	142.94	180.0	19	22	-4			

JULY 11 '12.H 40.M 32.S EPICENTRE 11.82 122.15 DEPTH= 31.KM

A=-0.52103 B= 0.82893 C= 0.20350 D= 0.8466 E= 0.5322
G=-0.1083 H= 0.1723 K=-0.9791 HT= 6.3

SE= 2.64

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
MANILA	3.02	339.9	0	44	-3	1	12	-11					
TAWU	10.54	353.7	2	34	2								
TAITUNG	10.91	355.1	2	50	13	5	11	32					
HWALIEN	12.10	357.7	2	51	-2								
NHATRANG	12.67	273.1	3	0	-1								
HONG KONG	12.91	324.9	3	11	7	5	8	-20					
ZO-SE	19.21	357.5	4	23A	-1	8	0	6					
NANKING	20.38	351.8	4	36	-1	8	21	2					
GUAM	22.10	83.3	4	57	3								
KUNMING	22.63	308.5	5	0K	0	9	0	-1					
CHENGTU	25.18	320.9	5	25	1								
SIAN	25.38	333.7	5	26	0	9	50	2					
DARWIN	25.54	160.0	5	29	1								
ABUYAMA	25.99	25.8	5	35K	3								
MATUSIRO	28.55	27.8	5	52	-3	10	32	-8					
PEKING	28.59	350.4	5	55	-1	10	43	3					
PORT BLAIR	28.81	272.8							17	29			
TUKUBASAN	29.20	30.7	6	0K	-1	10	55	5	6	53	PP		
LANCHOW	29.26	328.6	6	0	-2								
PAOTOW	30.58	341.7	6	13	0								
CHITTAGONG	30.77	294.0	6	18	3								
SHILLONG	31.68	299.9	6	20K	-3	11	38	9	7	34	PP		
CHANGCHUN	32.01	4.3	6	25	-1	11	34	-1					
VLADIVOSTOK	32.31	13.4							7	36			
PORT MORESBY	32.59	129.3	6	30A	-1	11	36	-7					
RABAUL	33.83	116.3	6	42	0								
CALCUTTA	33.91	292.8							17	40			
LHASA	33.91	306.3	6	42	0	12	4	0					
CHATRA	36.08	299.6	7	2K	1	12	33	-5					
ULAN-BATOR	38.19	343.4	7	17	-2	13	7	-3					
Y.-SAKHLINSK	39.14	22.4	7	26	-1								
CHARTERS TS.	39.60	143.0	7	30	0				9	39			
ESEN BULAK	40.85	332.5	7	41	0	13	53	3					
IRKUTSK	42.84	343.9	7	57	0	14	20	1					
HONIARA	43.10	117.7	8	2	3	14	28	5					
MUNDARING	43.91	187.3	8	5K	-1								
DEHRA DUN	44.75	301.3	8	9	-4	14	30	-17	18	13			
BOMBAY	47.96	284.8				15	35	2	19	28			
LAHORE	48.15	301.9	8	38	-1								

BRISBANE	49.01	143.1	8	40	-6	15	53	6				
ADELAIDE	49.11	162.0	8	46K	-1	15	47	-2	8	55	9	1 *SP
PETROPAVLOVK	50.38	27.8	8	56	-1	16	22	16				
YAKUTSK	50.42	4.6	8	55A	-2							
WARSAK DAM	50.98	304.3	9	0K	-1							
SEMIPALATNSK	51.48	326.9	9	4	-1							
KHOROG	51.87	308.6	9	7	-1	16	24	-3				
MAGADAN	52.21	18.0	9	11A	1							
ANDIJAN	52.22	312.8	9	12	2	16	11	-21				
KOUMAC	52.45	127.6	9	12A	0							
RIVERVIEW	53.13	149.7	9	13A	-4							
CANBERRA	53.33	152.6	9	19A	0							
MELBOURNE	53.82	157.6	9	22	0							
QUETTA	54.15	298.7	9	28	3							
TASHKENT	54.62	312.6	9	27	-1							
NOUMEA	55.10	127.9	9	31K	-1							
TARRALEAH	58.30	159.0	9	56	2							
MOORLANDS	58.68	158.5	9	58	1							
FORT NELSON	59.16	158.6	10	1	1							
TIKSI	59.91	2.5	10	3K	-3	18	14	0				
ASHKABAD	62.20	306.7	10	22	1	18	48	5				
SHIRAZ	66.62	297.2	10	48K	-2	19	38	1			13	15 PP
TEHERAN	67.62	303.8	10	52	-4	19	52	3				
AMDERMA	68.98	341.1	11	3K	-2	20	6	0				
TARATA	70.25	139.3	11	13	1							
KARAPIRO	70.30	137.6	11	13K	0							
CHATEAU	71.00	138.7	11	17	0							
ROXBURGH	71.11	147.0	11	16	-2							
TUAI	71.83	137.6	11	21	-1							
GEBBIES PASS	71.84	143.9	11	24	2							
TIFLIS	72.82	310.1	11	29	1	21	1	11				
KHEYS	74.28	351.2	11	35K	-1	21	7	0				
HONOLULU	76.35	70.8	11	23	-25	21	44	14			14	34 PP
MOSCOW	77.25	324.7	11	50	-3	21	37	-2				
WILKES	78.41	184.8	11	56	-4	21	46	-6				
APATITY	78.68	336.9	11	59K	-2	21	53	-2				
HAWAII V.OB.	79.24	72.3	12	16	12							
DUMONT	79.37	172.9	12	3	-2							
COLLEGE	79.41	25.7	12	4	-1						12	36
TANANARIVE	79.60	248.1	12	10A	4						13	1
KSARA	80.46	302.6	12	12A	1						15	14 PP
KEVO	80.78	339.4	12	16	4							
PULKOVO	80.81	329.2	12	12	0	22	14	-3				
MIRNY	81.04	191.4	12	13	-1							
SODANKYLA	81.30	337.1	12	14	-1							
KAJAANI	81.40	333.7	12	14	-2	22	22	-1			15	4 PP
ADDIS ABABA	81.77	277.5	12	25	8							
HELSINKI	83.39	330.0	12	25	-1							
NURMIJARVI	83.47	330.4	12	25	-1							
KIRUNA	83.52	338.0	12	25	-1	22	42	-3				
TROMSOE	83.56	339.9	12	30	3							
UMEA	84.68	334.2	12	31	-1							
MOULD BAY	85.09	12.2	12	33	-1							
ALERT	85.81	0.6	12	38	0	23	4	-3				
UPPSALA	87.03	330.7	12	42	-2	23	14	-5				
WARSAW	87.47	322.8				23	25	2				
UZHGOROD	87.64	319.1	12	45	-2							
SKALSTUGAN	88.10	335.1	12	48	-1							
KRAKOW	88.74	320.9	12	52	0	23	35	0				
SKALNATE PL.	88.79	320.0	12	58	6						13	35
ATHENS	89.36	308.6	12	58	3							
MAWSON	89.78	199.2	12	56A	-1				13	6	13	3 PCP
RACIBORZ	89.80	321.3	13	10	13							
BUDAPEST	90.08	318.7	13	0	2	23	50	3			24	43 PS
GOTEBORG	90.55	329.7	12	56	-5							
RESOLUTE	90.66	9.2	13	5	4							
BRATISLAVA	91.09	319.7	13	7	4						14	7
PRUHONICE	92.05	322.0	13	1	-6	24	11	6			17	0 PP
COLLMBERG	92.48	323.6	13	12	3						16	55 PP
SCOTT BASE	92.94	171.4	13	11	-1							
KASPERSKE H.	92.95	321.4	13	14	2						17	21 PP
JENA	93.45	323.6	13	13	-1	24	31	14			17	0 PP
LJUBLJANA	93.47	318.3	13	14	0						17	8 PP
TARANTO	93.47	312.4									28	10
TRIESTE	94.11	318.1	13	20	3	24	38	15			17	10 PP
SCORESBY SD.	94.30	348.6	13	19	1	23	57	-27				
PADOVA	95.43	318.4									14	38
MESSINA	95.46	310.7				24	0	5			17	16 PP

ALBFRNI	95.57	37.3	13	25	1					
STUTTGART	95.69	322.2	13	26	2				17	19 PP
ROME	96.35	315.0							27	31
BROKEN HILL	96.39	256.6	13	31	4					
STRASBOURG	96.68	322.5	13	31	2	24	28	26	26	31
BULAWAYO	97.27	251.0	13	32	1					
PENTICTON	98.58	35.7	13	32	-5					
MINERAL	101.52	44.4	13	51	1					
HUNGRY HORSE	102.23	34.5	13	56	2					
WOODY	105.54	47.6	14	9	777					
EUREKA	105.74	43.1	17	27	777				18	17 PP
BYRD STATION	106.35	170.8	14	14	777					
GRANADA	109.54	316.5							28	18 PS
ALBUQUERQUE	114.56	42.7	18	40	3					
WICHITA MTS.	119.71	38.2	18	49	2				20	9 PP
PALISADES	125.38	14.9				25	28	-31		
SAN JUAN	148.90	15.3	19	40	-1					
CARACAS	156.06	22.5	19	54	3				23	58
AREQUIPA	165.99	110.8	20	6	4					

JULY 13 3.H 32.M 0.S EPICENTRE 9.87 122.56 DEPTH= 79.KM

A=-0.53033 B= 0.83050 C= 0.17035 D= 0.8428 E= 0.5382
G=-0.0917 H= 0.1436 K=-0.9854 HT= 6.6

DEPTH OF FOCUS= 0.007R

SE= 2.57

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
HENGCHUN	12.18	352.0	2	57	5								
TAWU	12.51	352.9	2	53	-3								
TAITUNG	12.88	354.1	3	7	6								
ALISHAN	13.67	353.1	3	10	-2								
HWALIEN	14.05	356.5	3	19	2						5	9	
HONG KONG	14.75	327.9	3	21	-5	6	13	6					
TAIPEI	15.11	356.4	3	53	23	6	28	12					
CANTON	15.83	327.3	3	37	-2	6	32	0			3	51	*SP
ZO-SE	21.16	356.7	4	41A	0	8	22	-4					
GUAM	22.01	78.5	4	52	3	9	3	21			7	25	
NANKING	22.35	351.5	4	54	2	8	58	10			5	7	*SP
KUNMING	24.18	311.4	5	11A	1	9	28	8			9	52	*SS
CHENGTU	26.95	322.8	5	32	-4	10	4	-1			10	24	*SS
SIAN	27.30	334.8	5	40	1	10	13	2					
ABUYAMA	27.58	23.6	5	44A	2								
PORT BLAIR	29.36	276.2									15	42	
MATUSIRO	30.10	25.7	6	2	-2	10	55	-1					
PEKING	30.57	350.3	6	8K	0	11	5	2			11	26	*SS
PORT MORESBY	31.07	127.3	6	9	-4						7	23	
LANCHOW	31.12	329.8	6	13	0	11	9	-3					
CHITTAGONG	31.96	296.6	6	20	-1								
RABAUL	32.64	114.0	6	39	12								
SHILLONG	33.02	302.2	6	28	-2	11	46	4			7	41	PP
CHANGCHUN	33.91	3.6	6	37	0	11	59	4			6	53	*SP
VLADIVOSTOK	34.11	12.2	6	39A	0	12	4	6					
CALCUTTA	35.06	295.3									15	20	
LHASA	35.40	308.2	6	52A	2	12	22	4					
CHATRA	37.41	301.6	6	9A	-58								
ULAN-BATOR	40.16	343.6	7	29	-1	13	31	1					
Y.-SAKHLINSK	40.79	21.2	7	34	-1	13	44	4					
ESEN BULAK	42.76	333.1	7	51	0	14	43	34					
IRKUTSK	44.81	344.2	8	8A	0	14	44	6					
DEHRA DUN	46.12	302.7	8	20	2	14	58	1					
ADELAIDE	47.15	161.8	8	24A	-2								
BRISBANE	47.22	142.4	8	26	-1	15	14	1					
LAHORE	49.53	303.2	8	48	3								
RIVERVIEW	51.26	149.3	9	7	9						16	14	
CANBERRA	51.43	152.2	8	57A	-2								
MELBOURNE	51.88	157.4	9	1	-2								
PETROPAVLOVK	51.92	26.9	9	2	-1	16	23	5					
YAKUTSK	52.31	4.3	9	5A	-1	16	22	-1					
WARSAK DAM	52.42	305.4	9	7A	0								
FRUNSE	53.06	316.9	9	11A	0	16	40	6					
KHOROG	53.40	309.6	9	15	1								
ANDIJAN	53.84	313.7	9	18A	1	16	51	7					

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MAGADAN	53.93	17.3	9	14	-4							
QUETTA	55.45	299.8	9	29	0							
TASHKENT	56.23	313.4	9	33	-1							
TIKSI	61.83	2.3	10	10A	-3	18	25	-4				
ASHKABAD	63.69	307.4	10	25	0							
SVERDLOVSK	66.60	328.1				19	32	5				
SHIRAZ	67.87	298.0	10	51A	-1	19	47	4			13	22 PP
KARAPIRO	68.60	137.3	11	0	3							
TEHERAN	69.04	304.5	11	0	1	20	5	8				
CHATEAU	69.28	138.4	11	11	10							
WELLINGTON	69.93	140.6	11	2	-3						11	53
TUAI	70.13	137.4	11	7	1							
AMDERMA	70.94	341.2	11	9A	-2	20	21	2				
GORIS	73.18	308.3	11	24A	0	20	50	6				
TIFLIS	74.38	310.6	11	31	0	21	6	8				
KHEYS	76.25	351.2	11	41	-1	21	22	4				
WILKES	76.52	185.0	11	40	-3	21	21	0	11	52	14	38 PP
HONOLULU	76.61	70.4	11	43	-1	21	32	10			29	18 SSS
DUMONT	77.40	173.0	11	44	-4							
MOSCOW	79.06	325.0	11	57A	0	21	52	3				
MIRNY	79.23	191.6	11	55	-3							
TANANARIVE	79.26	248.5	11	50	-8				12	55		
APATITY	80.62	337.1	12	5	-1	22	8	3			22	32 PS
COLLEGE	80.98	25.6	12	7	-1						15	16 PP
KSARA	81.84	302.9	12	12A	0	22	20	3			15	21 PP
SIMFEROPOL	82.01	314.2	12	12A	-1	22	23	4				
ADDIS ABABA	82.42	277.9	12	18A	3							
PULKOVO	82.68	329.4	12	17	1							
KEVO	82.73	339.6	12	18	1							
SODANKYLA	83.24	337.2	12	18	-1						30	9 PKKP
KAJAANI	83.32	333.8	12	20	0							
HELSINKI	85.27	330.2	12	28	-1							
NURMIJARVI	85.35	330.5	12	29	-1	22	47	-5				
KISHINEV	85.39	316.8	12	29A	-1	22	51	-2				
KIRUNA	85.47	338.1	12	31	1	22	55	2			22	46 SKS
UMEA	86.59	334.3	12	34	-2	22	36	-28			16	15 PP
MOULD BAY	86.89	12.2	12	37	0							
CAPE HALLETT	87.67	166.9	12	40	-1							
ALERT	87.73	0.7	12	41	0	23	21	6			23	5 SKS
MAWSON	88.09	199.3	12	56	13							
UPPSALA	88.92	330.8	12	45	-2	23	28	2			23	10 SKS
WARSAW	89.25	322.9	12	49A	1	23	15	-14			23	36 SCS
UZHGOROD	89.37	319.2	12	49	0							
SOFIA	90.08	313.3	12	57	5	23	48	11			16	29 PP
KRAKOW	90.50	321.0	12	56	2	23	24	-16			13	4 PCP
SKALNATE PL.	90.53	320.1	12	58	3						16	46 PP
ATHENS	90.88	308.6	12	56K	0						23	46
SCOTT BASE	90.96	171.5	12	55	-2							
KARLSKRONA	91.13	327.6	12	57	0							
RACIBORZ	91.56	321.4	12	59	0	23	56	6			13	6 PCP
BELGRADE	91.57	315.9	13	2	3	23	52	2			16	41 PP
BUDAPEST	91.80	318.7	13	1	1	24	1	9			18	58 PPP
GOTEBORG	92.42	329.8	13	5	2							
BRATISLAVA	92.83	319.8	13	6K	1						16	50 PP
VIENNA-H.	93.26	320.0	13	5	-2							
PRUHONICE	93.82	322.0	13	9	-1	24	18	9			16	49 PP
PRAGUE	93.86	322.1	13	13	3							
COLLMBERG	94.27	323.6	13	12	0						16	57 PP
KASPERSKE H.	94.71	321.4	13	12	-2						17	6 PP
LJUBLJANA	95.18	318.3	13	17K	1						17	10 PP
JENA	95.24	323.6	13	16	0	24	20	37	13	46	17	7 PP
TRIESTE	95.82	318.1				24	12	26			17	14 PP
SCORESBY SD.	96.27	348.7	13	24	3	23	55	6				
BROKEN HILL	96.33	256.5	13	21	0							
BULAWAYO	97.01	250.8	13	24	0							
MESSINA	97.02	310.6									13	41
STUTTGART	97.47	322.2	13	27	1	23	47	-8				
ROME	98.00	314.9									23	20
DE BILT	98.36	326.4	13	24	-6	24	7	7			17	36 PP
STRASBOURG	98.45	322.4	13	22	-9	24	26	26			17	32 PP
ABERDEEN	99.35	333.0				24	10	5			25	22 S
DOURBES	99.63	324.8	13	36	0	24	11	5				
SOUTH POLE	99.81	180.0									.6	48
PENTICTON	99.91	36.0	13	38	*							
DURHAM	100.46	330.8				24	17	7			25	11 S
GARCHY	101.86	322.7									18	0
BYRD STATION	104.37	170.8	14	10	13							
CHINA LAKE	107.41	47.6	18	8	777							
TOLEDO	110.09	318.9									18	57

ALMERIA	110.61	315.4							19 7	PP
GRANADA	111.22	316.2							23 39	
MALAGA	112.00	316.2							19 12	PP
COIMBRA	112.68	321.2							19 20	PP
ALBUQUERQUE	115.70	43.5	18 35	2						
MANHATTEN	119.12	34.2	18 43	3						
WICHITA MTS.	120.97	39.2	18 45	1	25 48	14	19 19		20 16	PP
TULSA	121.86	36.4	18 48	3						
ROLLA	122.58	32.1	18 49	2						
FLORISSANT	122.68	30.3	18 49	2						
BREBEUF	122.99	13.5	18 50A	3						
BLOOMINGTON	124.21	27.2	18 50	0						
HALIFAX	125.48	5.4	18 54	2						
PENNSYLVANIA	126.17	19.2	18 55K	1						
M.BOUR	133.19	300.4							21 52	PP
SAN JUAN	150.65	17.0	19 41	4						
ANTIGUA	152.81	9.2	19 47	7						
CARACAS	157.67	25.3	19 55A	8					24 0	PP
BOGOTA	158.05	49.7	19 51	4						
TRINIDAD	159.23	11.0	19 51	2						

JULY 13 5.H 1.M 6.S EPICENTRE 30.64 79.48 DEPTH= 0.KM

A= 0.15733 B= 0.84745 C= 0.50703 D= 0.9832 E=-0.1825
G= 0.0926 H= 0.4985 K=-0.8619 HT= 1.6

SE= 1.43

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
DEHRA DUN	1.28	256.1	0 27	2	0 44	1		0 34 PP
NEW DELHI	2.85	224.7	0 46K	-1	1 26	3		
LAHORE	4.51	283.0	1 13	2	2 7	2		
WARSAK DAM	7.50	298.6	1 57A	4				
SEHORE	7.74	196.6	1 56	0	3 16	-10		
CHATRA	7.74	117.4	1 57K	1	3 22	-4		
BOKARO	8.80	138.8	2 11	0	3 48	-4		3 58 SS
KHOROG	9.49	318.1	2 20	-1	4 4	-5		
LHASA	10.06	92.7	2 31	2	4 20	-3		
QUETTA	10.83	270.8	2 38	-1	4 40	-2		
CALCUTTA	11.33	133.3						5 6
ANDIJAN	11.63	332.2	2 49	-1	4 57	-5		
DUZHANBE	11.85	314.8	2 52	-1				
SHILLONG	12.04	111.7	2 52	-4	5 0	-12		
NAMANGAN	12.11	330.6	2 57	1				
ALMATA-2	12.72	353.0	3 5	0				
POONA	13.09	204.3	3 6	-4	5 27	-10		5 44 SS
BOMBAY	13.15	208.9						4 35
HYDERABAD	13.18	184.3	3 13	2	6 13	34		6 52
VISHAKHAPTNM	13.32	164.0	3 40	27	6 23	40		6 38 SS
TASHKENT	13.48	325.1	3 14	-1	5 40	-6		
SAMARKAND	13.62	314.8	3 15	-2	5 47	-3		
CHITTAGONG	13.77	123.8	3 16	-3	5 44	-10		
MADRAS	17.56	177.7			7 7	-15		
VANNOVSKAYA	19.09	298.2	4 25	-1				
SEMIPALATNSK	19.75	1.5	4 33	-1				
ESEN BULAK	20.42	34.9	4 43A	2				
KIZYL-ARVAT	20.82	300.5	4 49	4				
LANCHOW	21.02	68.6	4 49	2				
KUNMING	21.27	99.3	4 51	1				
SHIRAZ	23.32	274.5	5 10	0	9 21	1	5 20	5 54 PPP
TIFLIS	29.91	301.3	6 12	1				
MOSCOW	38.62	322.8	7 27A	1				
YAKUTSK	45.00	30.8	8 18	-1				
APATITY	45.74	337.3	8 25K	0				
KAJAANI	46.38	331.5	8 30	0				
UZHGOROD	46.43	309.7	8 31	1				
HELSINKI	46.43	325.8	8 30	0				
NURMIJARVI	46.66	326.2	8 32A	0				9 49
SODANKYLA	48.01	335.5	8 42	0				
KEVO	48.85	338.5	8 49	0				
UMEA	49.46	329.9	8 54A	0				
UPPSALA	49.99	324.5	8 57A	-1				
KIRUNA	50.41	335.0	9 1A	0				
KARLSKRONA	50.77	319.6	9 3A	-1				
KHEYS	50.82	355.6	9 5A	1				

TROMSOE	51.44	337.1	9	9	U									
PRUHONICE	51.47	311.6	9	9A	U								11	7
KASPERSKE H.	52.16	310.6	9	14	0									
COLLMBERG	52.37	313.4	9	16	U								9	41
GOTEBORG	52.78	321.5	9	18A	-1									
JENA	53.29	313.0	9	21	-2								10	7
STUTTGART	55.02	310.6	9	35	0									
ROSELEND	57.33	307.3	9	51	-1									
DOURBES	57.81	312.7	9	54	-1									
GARCHY	59.39	309.7	10	5A	-1									
FOLINIERE	61.34	312.1	10	17	-3									
BROKEN HILL	66.45	235.2	10	53	U									
TOLEDO	66.51	303.5	10	53A	U									
MOULD BAY	72.73	4.6	11	31	-1									
PORT MORESBY	76.06	109.9	11	52	1									
COLLEGE	77.94	18.7	12	1	0								14	56 PP
CHARTERS TS.	81.59	119.2	12	21	0									
CANBERRA	92.59	129.9	13	15A	1			13	25					
WICHITA MTS.	114.97	358.2											19	30
AREQUIPA	149.99	291.4	19	55	8									

JULY 13 22.H 19.M 19.S EPICENTRE 56.99 163.31 DEPTH= 0.KM

A=-0.52427 B= 0.15715 C= 0.83693 D= 0.2871 E= 0.9579
G=-0.8017 H= 0.2403 K=-0.5473 HT= -7.9

SE= 3.12

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PETROPAVLOVK	4.80	215.9	1	9A	-6	1	59	-13					
MAGADAN	7.08	296.4	2	1	14						4	9	
Y.-SAKHLINSK	16.07	240.4	3	47	-2						6	59	SS
YAKUTSK	17.63	300.5	4	15A	7	7	42	18					
TIKSI	20.47	329.1	4	48A	6	8	45	19			8	58	PCP
VLADIVOSTOK	24.21	248.5	5	14	-5						9	35	
COLLEGE	24.42	51.1	5	21	U								
MATUSIRO	26.46	230.1	5	35A	-5								
CHANGCHUN	27.17	257.4	5	40	-7								
MOULD BAY	32.73	25.6	6	38	2								
ULAN-BATOR	34.62	279.5	6	52A	-1								
PEKING	34.71	261.3	6	51	-2								
KHEYS	36.68	344.6	7	14A	4	13	1	7			9	35	
PAOTOW	37.67	267.5	7	19K	1	13	9	0					
ALERT	38.80	8.7	7	31A	3								
ESEN BULAK	41.26	284.9	7	49A	1								
AMDERMA	41.73	329.2	7	56	4	14	18	8					
ALBERNI	41.93	68.7	7	50	-4								
LANCHOW	44.31	268.1	8	14K	1	14	47	-1					
PENTICTON	44.52	65.5	8	9	-6								
BANFF	45.31	61.0	8	21	U								
HONOLULU	45.48	125.3				14	58	-7			18	23	55
SEMIPALATNSK	46.73	299.3	8	33	1								
HUNGRY HORSE	47.92	63.1	8	39	-3								
KEVO	49.69	341.6	9	8	13								
BUTTE	50.25	64.4	8	57	-3								
APATITY	50.36	337.5	9	3K	2	16	22	9			16	48	
CALISTOGA	50.37	77.9	8	57A	-4								
SVERDLOVSK	50.72	316.1	9	6K	3	16	25	7					
TROMSOE	51.09	344.8	9	10	4								
BAGUIO CITY	51.62	236.2	9	5	-5								
LICK	51.83	78.4	9	11K	-1								
SODANKYLA	51.86	340.3	9	14	2						10	23	PCP
KIRUNA	52.51	343.2	9	18	1	16	56	13					
SCORESBY SD.	52.77	2.2	9	32	13								
PRIEST	53.24	78.6	9	35A	13								
EUREKA	53.25	72.4	9	19	-3								
ALMATA	53.35	294.7	9	23	0								
DUGWAY	54.35	69.6	9	27K	-3								
KAJAANI	54.56	337.8	9	37	5								
FRUNSE	54.83	295.9	9	35A	1						10	34	PCP
PASADENA	56.08	78.3	9	37	-6								
LHASA	56.16	273.3	9	43A	-1								
BOULDER CITY	56.47	74.4	9	43	-3								
PULKOVO	57.79	334.1	9	56	1	17	57	3					
NURMIJARVI	58.46	337.4	10	1A	2								

TASHKENT	58.57	298.3	10	0	-1						
HELSINKI	58.64	337.1	10	3	2						
SHILLONG	58.90	269.6	10	0	-3						
MOSCOW	59.37	327.7	10	8A	2						
UPPSALA	60.38	340.9	10	14	1	18	40	13			
CHATRA	60.47	274.4	10	13A	-1						
DEHRA DUN	62.65	284.0	10	11	-17						
MANHATTEN	63.12	59.1	10	28	-3						
WARSAK DAM	63.14	291.4	10	29	-3						
GOTEBORG	63.37	343.3	10	36A	3						
KARLSKRONA	64.23	340.6	10	41A	2						
WICHITA MTS.	65.73	63.5	10	45	-3	19	35	1		13	1 PP
TULSA	66.13	60.7	10	48	-3						
FLORISSANT	66.29	55.0	10	46	-6						
ASHKABAD	66.37	303.5	10	53	0						
BREBEUF	67.36	39.7	10	55	-4						
LWOW	68.35	333.0	11	7	2						
QUETTA	68.53	292.4	11	7	1						
WITTEVEEN	68.89	345.1	11	11	3						
KRAKOW	69.11	335.7	11	11	1						
RACIBORZ	69.46	336.8	11	15	3					11	47 PCP
SKALNATE PL.	69.85	335.2	11	7	-7						
SIMFEROPOL	69.90	324.1	11	15A	0	20	31	7		21	11 SCS
JENA	69.94	341.4	11	15	0					11	47
GORIS	70.24	312.9	11	18A	1	20	36	8		13	59 PP
PRUHONICE	70.30	339.2	11	18	1					13	58 PP
KASPERSKE H.	71.30	339.5	11	25A	2						
TEHERAN	71.31	307.2	11	25A	2	20	49	8			
BRATISLAVA	71.50	336.9	11	26A	2					11	58
VIENNA-H.	71.58	337.4	11	24	-1						
BUDAPEST	71.73	335.4								35	11
DOURBES	71.83	345.8	11	28	2						
STUTTGART	72.42	342.3	11	31	1						
STRASBOURG	72.85	343.3	11	34	2						
CHAPEL HILL	73.58	48.6	11	35	-2						
FOLINIFRE	73.75	348.9	11	38	0						
COLUMBIA	74.40	51.0	11	40	-1						
GARCHY	74.80	346.2	11	45K	1						
ROSELEND	75.84	343.4	11	52	2						
SHIRAZ	75.95	303.0	11	51A	1	21	33	0		14	33 PP
CHARTERS TS.	78.11	196.4	11	55A	-7						
KSARA	79.24	317.7	12	9	1						
BAGNERES	79.30	347.5	12	9	0						
TOLEDO	82.90	350.2	12	29	1						
GRANADA	85.54	349.5	12	44A	3	23	16	4			
MALAGA	86.07	350.1	12	45	1						
ADELAIDE	93.95	200.0	13	15	-6						
BANGUI	112.45	321.4								19	25 PP
KIMBERLEY	139.52	296.4	19	21	-8						
BYRD STATION	143.41	163.4	19	27	-9						
MAWSON	144.19	220.1	19	33K	-5						
SOUTH POLE	146.82	180.0	19	37	-5						

JULY 14 15.H 58.M 54.S EPICENTRE 30.64 79.32 DEPTH= 17.KM

A= 0.15979 B= 0.84697 C= 0.50706 D= 0.9827 E=-0.1854
G= 0.0940 H= 0.4983 K=-0.8619 HT= 1.6

SE= 3.64

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
DEHRA DUN	1.14	254.2	0	23	2	0	39	2			0	31	PP
NEW DELHI	2.76	222.5	0	44K	-1	1	23	5			0	55	PG
LAHORE	4.37	283.3	1	8A	0								
WARSAK DAM	7.38	299.0	1	51	1								
SEHORE	7.70	195.5	1	50	-4	3	11	-11			3	23	SS
BOKARO	8.90	138.1	2	9	-2	3	44	-8			3	57	SS
KHOROG	9.39	318.7	2	6	-12	3	43	-21					
LHASA	10.20	92.6	2	28	-1	4	18	-6					
QUETTA	10.69	270.7	2	32	-4	4	31	-5					
ANDIJAN	11.56	332.7	2	46	-1	4	54	-3					
NAMANGAN	12.04	331.1	2	53	-1	5	5	-4					
SHILLONG	12.17	111.4	2	49	-7	4	56	-16					
ALMATA-2	12.70	353.5	3	6	3	5	32	7					
POONA	13.04	203.6	2	59	-8	5	17	-16			5	31	SS
BOMBAY	13.09	208.2	3	6	-2	5	38	4					

HYDERABAD	13.17	183.6	3	18	9					6	48	
VISHAKHAPTNM	13.36	163.3	3	18	6	6	1	20		6	16	SS
TASHKENT	13.39	325.5	3	11	-1							
SAMARKAND	13.52	315.1	3	11	-3							
CHITTAGONG	13.89	123.4	3	19	0	5	38	-16				
MADRAS	17.57	177.2				7	2	-17				
ASHKABAD	18.77	298.5	4	18	-3	7	42	-5				
VANNOVSKAYA	18.96	298.3	4	26	3							
SEMIPALATNSK	19.75	1.8	4	29	-3	8	29	21				
ESEN BULAK	20.50	35.1	4	39	-1							
KIZYL-ARVAT	20.70	300.6	4	42	0	8	29	1				
LANCHOW	21.16	68.7	4	45	-2							
CHENGTU	21.24	83.6	4	48	0	8	34	-4				
KUNMING	21.41	99.1	4	50	1	8	41	0				
SHIRAZ	23.18	274.4	5	6A	-1	9	16	2	5	16	6	0
TEHERAN	23.88	289.7	5	14	0						16	17 SCS
SIAN	25.20	74.0	5	27	1							
PAOTOW	26.75	59.8	5	43	2							
ULAN-BATOR	27.24	42.9	5	39	-6							
SVERDLOVSK	29.26	338.9	6	2K	-2							
TIFLIS	29.79	301.4	6	8	0							
PEKING	31.31	62.4	6	21	-1							
MOSCOW	38.53	322.9	7	23A	0	13	17	-1				
AMDERMA	40.44	350.6	7	38A	-1							
ADDIS ABABA	43.45	249.0	8	13A	9							
PULKOVO	43.66	326.4	8	5	-1	14	34	0				
YAKUTSK	45.07	30.9	8	14A	-3							
APATITY	45.69	337.3	8	21K	-1							
ATHENS	45.93	294.8									5	29 SG
UZHGOROD	46.31	309.7	8	26	-1							
HELSINKI	46.35	325.8	8	26	-1							
NURMIJARVI	46.58	326.2	8	28	-1							
SKALNATE PL.	47.67	310.4	8	40	2						10	48 PP
SODANKYLA	47.95	335.5	8	38	-2						10	22 PP
KEVO	48.79	338.5	8	45	-1							
TIKSI	48.84	18.7	8	45	-2							
UMEA	49.39	329.9	8	50	-1							
BRATISLAVA	49.79	309.1	8	53	-1							
UPPSALA	49.90	324.5	8	53A	-2							
VIENNA-H.	50.27	309.3	8	57	-1							
KIRUNA	50.35	335.0	8	57A	-1							
Y.-SAKHLINSK	50.67	52.3	9	8	7							
KARLSKRONA	50.67	319.6	8	59	-2							
KHEYS	50.81	355.6	9	1A	-1	16	16	0				
PRUHONICE	51.36	311.6	9	5A	-1						11	2 PP
TROMSOE	51.38	337.1	9	4	-2							
LJUBLJANA	51.72	306.6	9	6	-3							
KASPERSKE H.	52.05	310.6	9	10	-1						11	31
COLLMBERG	52.26	313.4	9	11A	-2						12	51
TRIESTE	52.30	306.2	9	12	-1							
GOTEBORG	52.69	321.5	9	14	-2							
SKALSTUGAN	52.85	328.9	9	16A	-1							
JENA	53.18	313.0	9	17	-3	16	42	-6			10	21
STUTTGART	54.91	310.5	9	31	-1							
ROSELEND	57.22	307.3	9	48	-1							
ISOLA	57.25	305.4	9	45	-4							
DOURBES	57.71	312.7	9	51	-1							
LWIRO	58.14	245.2	9	54	-1							
GARCHY	59.28	309.7	10	2	-1							
KEW	60.49	315.0	10	19	7							
BANGUI	62.67	258.2	10	15	-11	18	17	-35				
ALERT	65.57	354.9	10	43	-2							
BROKEN HILL	66.33	235.1	10	48	-2							
TOLEDO	66.39	303.5	10	49	-1							
BULAWAYO	70.16	230.6	11	22	8							
MOULD BAY	72.74	4.6	11	27	-2							
COLLEGE	77.99	18.7	11	57	-2						14	51 PP
CHARTERS TS.	81.71	119.1	12	18	-1							
ADELAIDE	85.93	134.9	12	31	-10							
BRISBANE	90.80	121.5	13	4	0							
CANBERRA	92.70	129.8	13	11A	-2							
WICHITA MTS.	114.96	358.1	18	47	7						29	22 PKKP
AREQUIPA	149.86	291.3	19	55	11							

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JULY 14 20.H 38.M 0.S EPICENTRE 49.81 155.64 DEPTH= 61.KM

A=-0.59018 B= 0.26717 C= 0.76178 D= 0.4124 E= 0.9110
G=-0.6940 H= 0.3142 K=-0.6478 HT= -5.3

DEPTH OF FOCUS= 0.004R

SE= 2.06

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PETROPAVLOVK	3.72	29.2	0 58K	1	1 42	2		
KURILSK	6.98	231.9	1 42A	0	3 5	4		
Y.-SAKHLINSK	9.04	256.9	2 14K	4				4 9
MAGADAN	10.15	345.9	2 28	2				
VLADIVOSTOK	17.63	256.8						4 16 PP
TUKUBASAN	17.66	225.6	3 58	-5				7 3
MATUSIRO	18.31	230.2	4 10	-1	7 35	5		
YAKUTSK	18.82	320.3	4 18A	1				4 31 PP
ABUYAMA	20.95	232.1	4 39A	-1				
TIKSI	25.06	340.3						5 59 PP
PEKING	29.31	265.7	5 59	0				
ULAN-BATOR	31.68	285.6						7 5
ZO-SE	31.82	247.0	6 22A	1	11 33	7		
NANKING	32.60	251.0	6 27	-1	11 42	4		
COLLEGE	32.71	41.2	6 29	0				
ESEN BULAK	38.91	288.5	7 40	19				
MOULD BAY	41.14	21.3	7 40A	0				
KHEYS	42.49	346.1	7 49	-2				9 43 PCP
AMDERMA	45.68	331.0	8 16A	-1				
KIPAPA	46.10	110.7	8 32	12				
HONOLULU	46.15	110.9			15 14	13		18 38
SEMIPALATNSK	46.38	301.2	8 21	-1				
ALERT	46.53	6.4	8 23	0				
RESOLUTE	47.39	19.9	8 30A	0				
VICTORIA	50.44	58.4	8 51	-3				
THULE	50.95	12.2	8 55	-2			9 7	
PENTICTON	52.05	55.7	9 5A	-1				
SVERDLOVSK	52.75	316.5	9 10K	-1				
FRUNSE	53.82	295.8	9 20	1				10 25 PCP
SHILLONG	54.16	268.2	9 22K	1				
APATITY	55.20	336.7	9 27A	-2				
HUNGRY HORSE	55.59	54.0	9 31	-1			9 43	
CHITTAGONG	56.45	265.5	9 38	0				
CALISTOGA	56.89	67.7	9 41A	0				
SODANKYLA	57.00	339.0	9 39	-3				
KIRUNA	57.98	341.6	9 46	-3				
LICK	58.29	68.3	9 51	0				
BOZEMAN	58.87	54.9	9 54	-1				
HONIARA	59.11	175.0	10 2	5				
PRIEST	59.68	68.8	10 0A	0				
LAHOPE	61.30	285.8	10 12	0				
WARSAK DAM	61.35	289.7	10 11	-1				
UMEA	61.44	339.2	10 12	0				
NEW DELHI	61.53	281.4	9 38K	-35				
PASADENA	62.52	68.9	10 17	-3			10 31	
MOSCOW	62.87	325.9	10 20	-2				10 52 PCP
FLAMING GRGE	62.96	57.9	10 21	-2				
NURMIJARVI	63.14	335.2	10 22	-2				
BOULDER CITY	63.26	65.3	10 24	-1				
SKALSTUGAN	63.34	342.6	10 30	5				
HELSINKI	63.34	334.9	10 24	-1				11 1 PCP
RAPID CITY	64.04	51.9	10 30	0				
GLEN CANYON	64.46	62.4	10 31	-1				
UPPSALA	65.51	338.2	10 38	-1				11 10 PCP
ASHKABAD	66.33	301.1	10 43	-1				
QUFTTA	66.81	289.6	10 48	1				
GOTEBORG	68.75	340.0	11 0	1				12 15
ALBUQUERQUE	68.82	60.8	10 59	-1			11 13	
KARLSKRONA	69.30	337.4	11 3	0				
CHARTERS TS.	70.08	189.4	11 6A	-2				
TIFLIS	70.58	312.1	11 12	1				11 38 PCP
MANHATTEN	70.98	51.5	11 11	-2				
GORIS	71.53	309.7	11 17	1				
TEHERAN	71.75	303.9	11 19	1				
LWOW	72.44	329.5	11 22	0				
SIMFEROPOL	72.79	320.7	11 26	2				
KISHINEV	73.14	325.1	11 25	-1				
WICHITA MTS.	73.33	55.8	11 26A	-1	20 53	3	11 40	14 23 PP
TULSA	73.90	53.2	11 29	-1				

RACIBORZ	74.03	333.1	11 33	2			11 40	PCP
SKALNATE PL.	74.21	331.4	11 33	1				
ROLLA	74.32	49.4	11 31	-2	11 43			
COLLMBERG	74.36	336.7	11 33K	0			14 20	
FLORISSANT	74.36	47.8	11 32A	-1	11 45			
ST. LOUIS 1	74.55	47.9	11 33	-1	11 46			
JENA	75.05	337.4	11 37	0	12 16		14 28	PP
PRUHONICE	75.15	335.2	11 39K	2			12 12	
SHAWINIGAN	75.26	32.3	11 38A	0				
SHIRAZ	75.71	299.0	11 41A	0			13 6	
BREBEUF	75.87	33.3	11 41A	-1				
BLOOMINGTON	75.87	45.1	11 52	10				
BRATISLAVA	76.06	332.8	11 44K	1				
BUDAPEST	76.10	331.3					38 13	
KASPERSKE H.	76.19	335.4	11 45K	2			12 22	
VIENNA-H.	76.20	333.3	11 45	2				
BRISBANE	76.90	182.6	11 47	0				
KEW	77.04	344.8	11 47	-1				
DOURBES	77.42	341.4	11 50	0				
STUTTGART	77.62	338.0	11 52	1	12 26			
STRASBOURG	78.16	338.8	11 56	2				
PENNSYLVANIA	78.26	38.6	11 54A	-1				
LJUBLJANA	78.73	333.5	11 57A	-1				
SOFIA	78.86	326.2	11 59	1			12 45	
PARIS	79.08	342.3	12 1	2				
TRIESTE	79.32	333.9	12 1	0				
FOLINIERE	79.67	344.2	12 3	0				
BESANCON	79.82	339.5	12 4	1				
GARCHY	80.42	341.5	12 7	0				
KSARA	81.13	313.0	12 12A	2				
ROSELEND	81.14	338.6	12 12	2				
ISOLA	82.46	337.8	12 18	1				
COLUMBIA	82.63	44.4	12 19	1				
MONACO	82.79	337.4	12 19	0				
ATHENS	82.84	323.7	12 19K	0				
CANBERRA	84.96	185.5	12 39	9				
ADELAIDE	85.74	193.9	12 32A	-2				
MELBOURNE	87.77	188.4	12 44	0				
TOLEDO	88.91	344.5	12 50A	1			13 9	
KARAPIRO	89.12	164.4	12 49A	-1	13 3			
BROKEN HILL	124.62	290.3	18 55A	2				
SCOTT BASE	127.58	177.0	18 58	0				
BULAWAYO	128.86	285.6	19 3A	2				
MAWSON	135.69	213.2	19 14	0				
KIMBERLEY	137.45	280.9	19 7	-10				
BYRD STATION	137.73	165.0	19 8	-10				
SOUTH POLE	139.62	180.0	19 11	-10				

JULY 15 6.H 47.M 22.S EPICENTRE 39.62 141.08 DEPTH= 106.KM

A=-0.60091 B= 0.48530 C= 0.63513 D= 0.6283 E= 0.7780
G=-0.4941 H= 0.3990 K=-0.7724 HT= -1.5

DEPTH OF FOCUS= 0.012R

SE= 2.35

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MORIOKA	0.11	42.0	0 15K	-1	0 25	-3		
MIZUSAWA	0.49	175.1	0 15	-3	0 26	-6		
MIYAKO	0.69	87.2	0 17K	-3	0 32	-2		
AKITA	0.76	277.9	0 22A	2	0 36	1		
HATINOHE	0.97	20.8	0 21K	-1	0 37	0		
ISINOMAKI	1.20	170.8	0 22K	-2	0 38	-4		
SAKATA	1.20	233.8	0 25A	1	0 42	0		
AOMORI	1.22	349.4	0 25A	1	0 44	2		
SENDAI	1.35	185.9	0 25K	-1	0 42	-3		
YAMAGATA	1.48	202.7	0 26K	-2	0 46	-2		
HUKUSIMA	1.93	194.4	0 32K	-1	0 54	-3		
HAKODATE	2.20	353.8	0 38K	1	1 4	0		
NIIGATA	2.32	223.7	0 39	1	1 10	4		
MORI	2.51	351.4	0 43K	2	1 14	3		
SHIRAKAWA	2.58	195.4	0 41	-1	1 7	-6		
ONAHAMA	2.67	183.0	0 41K	-2	1 11	-4		
MURORAN	2.70	358.5	0 44K	1	1 17	1		

AIKAWA	2.72	235.0	0 44	0	1 15	-1
URAKAWA	2.84	26.5	0 46K	1	1 17	-2
TOMAKOMAI	3.03	7.1	0 51	3	1 25	1
HIROO	3.16	31.9	0 49	-1	1 26	-1
UTUNOMIYA	3.21	197.6	0 49	-1	1 20	-8
SUTTSU	3.24	348.9	0 52	1	1 27	-2
MITO	3.27	188.6	0 49K	-2	1 24	-5
TAKADA	3.36	222.3	0 54A	2	1 32	1
SAPPORO	3.45	3.3	0 53K	-1	1 33	-1
KAKIOKA	3.46	192.1	0 50	-4	1 21	-13
TUKUBASAN	3.48	193.1	0 51A	-3	1 22	-13
MAEBASI	3.58	206.9	0 55A	0	1 36	-1
OBIHIRO	3.67	25.2	0 57K	1		1 24
KUMAGAYA	3.71	201.7	0 56	-1	1 56	16
NAGANO	3.72	218.5	1 0K	3	1 44	4
MATUSIRO	3.82	217.2	0 58K	0		
OIWAKE	3.84	212.1	1 1	2	1 46	3
TYOSI	3.90	182.7	0 56K	-4	1 39	-6
TITIBU	3.96	204.1	1 1	1	2 0	14
WAZIMA	3.97	237.0	1 2A	1	1 48	2
HONGO	4.04	195.3	1 4	2		
TOKYO C.M.O.	4.07	195.4	1 3	1	1 46	-3
MATUMOTO	4.16	217.1	1 5	2		
KUSIRO	4.19	35.6	1 1	-3	1 48	-4
ASAHIGAWA	4.27	12.7	1 4A	-1	1 51	-3
YOKOHAMA	4.33	195.6	1 4	-2	1 55	0
RUMOE	4.35	5.2	1 6	0	1 39	-17
KOHU	4.42	207.6	1 6	-1	2 8	11
HUNATU	4.50	204.7	1 20	12	2 16	17
TAKAYAMA	4.60	222.3	1 5	-4		
KANAZAWA	4.66	229.9	1 11	1	2 2	-1
MERA	4.79	192.3	1 9	-3		
MISIMA	4.80	201.3	1 14	2	1 57	-10
AJIRO	4.82	199.7	1 9	-3	2 2	-5
IIDA	4.84	213.2	1 13	1	2 15	7
ABASHIRI	5.01	27.5	1 21	6	2 8	-4
NEMURO	5.02	40.9	1 12A	-3	2 4	-8
OSIMA	5.03	196.1	1 14	-1	2 5	-7
SHIZUOKA	5.11	205.5	1 23	7	2 34	20
HUKUI	5.23	228.6	1 19	1		2 45
GIHU	5.43	220.4	1 22A	2	2 40	18
OMAESAKI	5.50	205.4	1 24	3		
NAGOYA	5.51	217.6	1 22	0	2 22	-2
HAMAMATU	5.58	209.8	1 24	2	2 44	18
TSURUGA	5.61	226.6	1 24	1		
HIKONE	5.79	223.0	1 29	4	2 51	20
WAKKANAI	5.81	4.2	1 26K	0	2 33	1
KAMEYAMA	6.01	219.1	1 31	3	2 37	1
KYOTO	6.26	224.5	1 32	0	2 45	2
TOYOOKA	6.43	232.5	1 31K	-3	2 48	1
ABUYAMA	6.46	224.5	1 34K	-1		
NARA	6.47	222.0	1 26	-9		
HATIDYOZIMA	6.59	189.4	1 34	-2		
OSAKA	6.65	223.5	1 38	1	3 9	17
OWASE	6.78	216.7	1 47	8	3 37	42
KOBE	6.82	225.5	1 41	2	3 3	7
TOTTORI	6.84	235.3	1 40	0	3 36	39
SAIGO	7.01	243.3	1 43	1	3 3	2
WAKAYAMA	7.16	223.1	1 38	-6		
SUMOTO	7.22	225.0	1 45	0	3 16	10
SIOMISAKI	7.49	216.4	1 51	2	3 18	5
Y.-SAKHLINSK	7.49	8.7	1 46	-3	3 8	-5
KURILSK	7.53	39.7	1 48A	-1	3 7	-6
MATSUE	7.60	239.3	1 52	2	3 16	1
TOKUSIMA	7.60	225.2	1 59	9		
TAKAMATU	7.72	228.9	1 51	-1	3 17	-1
VLADIVOSTOK	7.74	299.8	1 53K	1	3 20	1
TSURUGISAN	8.08	226.7				2 33
KOTI	8.57	227.4	2 2	-1	3 37	-2
HAMADA	8.58	239.5	2 2K	-1	3 31	-8
HIROSIMA	8.67	235.5	2 7	2		
MATUYAMA	8.81	231.7	2 4	-2	3 51	6
ASHIZURI	9.48	225.9	2 15	0	4 9	8
OOITA	9.93	233.0	2 23	2	4 23	11
KUMAMOTO	10.78	234.2	2 35	2	4 46	14
MIYAZAKI	10.97	228.5	2 37	2	5 1	24
NAGASAKI	11.36	236.2	2 40	0	5 4	18
KAGOSIMA	11.74	230.1	2 48	2		3 28

CHANGCHUN	12.51	294.8	2	56	0	5	16	3				
PETROPAVLOVK	18.01	36.1	4	1	-4						4	12 PP
ZO-SE	18.29	248.4	4	5K	-3							
PEKING	19.12	279.2	4	14K	-3	7	42	-1	4	35	8	17 *SS
NANKING	19.56	254.2	4	18K	-4	7	47	-5				
MAGADAN	20.87	14.0	4	35A	-1							
YAKUTSK	23.48	346.5	5	0K	-1	9	4	1			5	40 PPP
PAOTOW	23.71	282.4	5	1K	-2	9	6	-1	5	23		
SIAN	26.17	268.4	5	24K	-3						5	55 *SP
GUAM	26.26	171.9	5	24	-3							
IRKUTSK	28.19	308.9	5	43K	-2	10	24	3				
HONG KONG	28.66	240.9	5	54	5	10	30	1	6	23	11	10 *SS
CANTON	28.69	243.2	5	49K	-1	10	29	0			11	8 *SS
LANCHOW	29.49	275.0	5	54	-3	10	43	1	6	16	11	23 *SS
MANILA	30.42	220.8	5	42	-23							
CHENGTU	31.42	265.1	6	11	-3	11	7	-5				
ESEN BULAK	33.11	296.7	6	27K	-1	11	43	4				
KUNMING	35.18	257.4	6	45K	-1	12	11	1			12	56 *SS
LHASA	41.89	272.1	7	43K	1	13	54	3				
SEMIPALATNSK	43.20	305.3	7	50K	-2							
CHATRA	46.23	271.0	8	17K	0							
COLLEGE	47.07	33.5	8	25	2	15	9	3			9	0
FRUNSE	48.91	296.5	8	38K	1	15	34	2			9	12
PORT MORESBY	49.09	172.1	8	37	-2	15	33	-1				
AMDERMA	49.84	333.4	8	43A	-2	15	43	-2				
KHEYS	50.07	347.7	8	45K	-1	15	49	1			10	4 PCP
NEW DELHI	53.03	278.8									10	7
SVERDLOVSK	53.06	317.3	9	7A	-2							
KHOROG	53.16	291.4	9	10A	0	16	31	1				
TASHKENT	53.16	296.6	9	10K	0	16	36	6	9	33	17	12
LAHORE	53.77	283.5	9	13	-1							
MOULD BAY	54.14	16.9	9	15K	-2							
KIPAPA	54.51	90.5	9	20	1							
HONOLULU	54.51	90.7	9	22	3	16	57	9			19	2
WARSAK DAM	54.69	287.5	9	20K	-1	16	55	4				
ALERT	57.57	3.6	9	41K	0	17	30	1			18	11 *SS
HAWAII V.OB.	57.76	90.7	9	48	5							
NORD	58.46	356.3									10	10
CHARTERS TS.	59.59	174.3	9	53	-2							
QUETTA	59.96	285.8	9	57	-1							
RESOLUTE	60.17	14.7	9	58K	-1							
APATITY	60.23	335.1	9	59K	-1	18	2	-1	10	22	12	8 PP
KEVO	60.93	338.7	10	4	0							
POONA	61.03	270.7	10	4K	-1							
ASHKABAD	62.21	297.6	10	12	-1							
SODANKYLA	62.49	336.6	10	13K	-2	18	31	-1	10	38	12	31 PP
THULE	62.74	7.5	10	14	-3						10	45
KOUMAC	63.67	155.7	10	22A	-1				10	46		
KIRUNA	64.01	338.7	10	23K	-2	18	51	0	10	49	19	31 *SS
KAJAANI	64.16	333.4	10	25	-1	18	51	-2				
VICTORIA	64.84	47.0	10	30	0							
MOSCOW	65.03	322.6	10	32K	1	19	4	1	10	56	11	7 PCP
PULKOVO	65.84	328.8	10	36	-1	19	15	2	11	1	19	58 *SS
NOUMEA	66.00	154.3	10	38A	0				11	2		
PENTICTON	66.51	44.8	10	41K	0							
UMEA	66.82	335.5	10	41	-2				11	7	13	3 PP
NURMIJARVI	67.55	331.3	10	46	-1	19	32	-2				
BRISBANE	67.55	168.7	10	47	0	19	28	-6				
HELSINKI	67.66	331.0	10	48	0				11	14	13	9 PP
TEHERAN	68.11	298.8	10	51K	0	20	23	42				
TIFLIS	69.03	307.2	10	56K	-1	19	53	1			13	31 PP
GORIS	69.33	304.5	10	57K	-1						13	37 PP
SKALSTUGAN	69.42	338.1	10	58K	-1				11	23	13	26 PP
SCORESBY SD.	69.52	354.0	10	59K	-1	20	1	4	11	25	11	43 *SP
HUNGRY HORSE	70.08	43.3	11	4	1				11	28		
UPPSALA	70.53	333.5	11	4K	-2	20	5	-4			13	36 PP
SHIRAZ	70.76	292.8	11	6K	-1	20	12	0	11	35	15	29 PPP
CALISTOGA	70.85	55.5							11	33		
BERKELEY	71.50	56.0				20	25	5	11	37		
RENO	72.06	53.4	11	16	1							
LICK	72.21	56.1	11	20A	4						11	41
BUTTE	72.30	44.6	11	16	0				11	42		
SIMFEROPOL	73.31	314.8	11	22K	0	20	43	2	11	51	14	3 PP
BOZEMAN	73.35	44.2	11	24	2				11	49		
PRIEST	73.56	56.6	11	25K	1						11	50
BERGEN	73.95	338.9	11	25	-1							
KARLSKRONA	74.00	331.7	11	25K	-1				11	48	14	9 PP
GOTEBORG	74.08	334.3	11	25K	-2				11	51	14	12 PP
ADELAIDE	74.25	182.0	11	27	-1							

WARSAW	74.76	326.5	11	30K	0	20	57	0			14	19	PP
CANBERRA	74.93	173.3	11	21	-10								
LWOW	75.14	323.4	11	33K	0	21	0	-1	11	59	14	21	PP
COPENHAGEN	75.50	332.8	11	35K	0						14	25	
SIDA	75.62	350.6	11	38A	3				12	4			
REYKJAVIK	75.72	352.4	11	38A	2				12	4			
DUGWAY	75.87	49.4	11	38A	1								
SALT LAKE C.	76.06	48.4	11	39	1				12	4			
PASADENA	76.39	57.0	11	40	0	21	18	3			12	7	
KRAKOW	76.82	325.5	11	42	0				12	8			
SKALNATE PL.	77.32	324.7	11	47	2				12	9	14	46	PP
BOULDER CITY	77.35	53.7	11	46	1				12	11			
FLAMING GRGE	77.36	47.0	11	46	1				12	11			
PRICE	77.42	48.8	11	47	2								
RACIBORZ	77.55	326.4	11	47	1				12	13	11	55	PCP
RAPID CITY	78.54	41.5	11	53	1				12	18			
GLEN CANYON	78.70	51.2	11	50	-2				12	18			
COLLMBERG	78.74	329.7	11	52K	-1						14	51	PP
PRAGUE	79.13	328.2	11	49	-6	21	45	1					
BUDAPEST	79.13	324.2	11	54	-1	21	41	-3			14	41	PP
PRUHONICE	79.15	328.1	11	55	0	21	44	0			12	21	
KSARA	79.44	305.2	11	56K	0				12	32	14	59	PP
BRATISLAVA	79.46	325.6	11	56	-1						14	38	
JENA	79.58	330.2	11	57	0	21	48	-1	12	22	14	45	PP
VIENNA-H.	79.72	326.1	11	59K	1						12	45	
WITTEVEEN	79.82	333.9	12	0	1						12	26	
KASPERSKE H.	80.21	328.1	12	1K	0				12	25	14	44	
BELGRADE	80.44	321.6	12	3A	1						14	30	PP
SOFIA	80.56	318.6	12	4	2				12	30	15	8	PP
DURHAM	80.69	339.1	12	4K	1								
DE BILT	80.92	334.2	12	7	3	22	38	35					
RENSBERG	81.19	332.5	12	5K	-1								
HEIDELBERG	81.90	330.8	12	10	0								
STUTTGART	82.20	330.1	12	11A	0	22	17	1	12	38	23	1	SS
LJUBLJANA	82.22	325.6	12	11K	0				12	34	15	23	PP
DOURBES	82.81	333.4	12	15	1								
TRIESTE	82.87	325.8	12	13	-1	22	22	-1	12	42	15	30	PP
RAVENSBURG	82.88	329.4	12	14	0								
SCHEFFERVLLE	82.95	15.8	12	15A	0				12	41			
ALBUQUERQUE	83.12	49.9	12	18	2				12	42			
KEW	83.22	336.9	12	15	-1	22	17	-9	12	41			
KARAPIRO	83.41	153.2	12	18	1				12	42	12	53	*SP
CHUR	83.67	328.9	12	19	1	22	23	-8					
ATHENS	83.77	315.1	12	17K	-2								
PADOVA	83.87	326.7	12	38	19	22	38	6					
CHATEAU	84.55	153.8	12	28	5				12	47			
BESANCON	84.71	331.1	12	24	0								
TUAI	84.75	152.5	12	23	-1				12	48			
FLORENCE X.	85.44	326.1	12	32	5	22	44	-4			16	0	PP
FOLINIERE	85.64	335.6	12	29	1								
GARCHY	85.74	332.8	12	29	0						13	3	
ROSELEND	85.76	329.9	12	30	1								
ROME	86.40	324.2	12	34	2	22	44	-13			15	58	PP
CLERMONT-FD.	87.01	332.0	12	37	2								
WICHITA MTS.	87.78	45.4	12	40	1	23	15	5	13	5	16	0	PP
MESSINA	87.85	320.1	12	30	-9						16	6	
TULSA	88.39	42.8	12	42	0	23	17	1	13	8			
ROLLA	88.82	39.2	12	45	1	23	22	2					
SHAWINIGAN	89.03	22.6	12	45	0								
ST. LOUIS 1	89.04	37.7	12	46	1	23	23	1					
FAYETTEVILLE	89.08	41.7									23	24	
BREBEUF	89.72	23.6	12	48	0	23	28	0	13	14	13	23	*SP
BLOOMINGTON	90.30	35.0	12	52	1	23	34	1					
ADDIS ABABA	93.65	284.8	13	8K	2								
PALISADES	93.66	25.8				24	2	-1					
TOLEDO	94.70	333.8	13	12K	1						17	1	PP
GRANADA	96.96	332.8				23	48	1			17	21	PP
LWIRO	108.50	282.8									19	46	
SCOTT BASE	118.25	174.0							19	1			
BULAWAYO	119.65	267.6	18	40	2								
MAWSON	121.74	206.2	18	43K	1				19	9			
SOUTH POLE	129.43	180.0	18	57	0								
BYRD STATION	130.35	166.9	19	0	1				19	25	21	13	

JULY 15 15.H 12.M 44.S EPICENTRE 40.16 142.68 DEPTH= 55.KM

A=-0.60949 B= 0.46468 C= 0.64233 D= 0.6063 E= 0.7952
G=-0.5108 H= 0.3894 K=-0.7664 HT= -1.7

DEPTH OF FOCUS= 0.003R

SE= 2.91

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
MIYAKO	0.74	227.3	0	11K	-4	0	20	-7				
HATINOHE	0.95	293.4	0	17K	-1	0	29	-2				
MORIOKA	1.25	249.0	0	21K	-1	0	34	-4				
MIZUSAWA	1.57	229.9	0	24	-2	0	44	-2				
AOMORI	1.59	295.2	0	27K	1	0	47	1				
URAKAWA	1.99	2.2	0	31	-1	1	3	7				
ISINOMAKI	2.02	211.9	0	30A	-2	0	44	-13				
AKITA	2.03	258.4	0	32K	0	1	2	5				
HIROO	2.18	12.7	0	35	1	1	10	10				
HAKODATE	2.20	319.3	0	36K	1	1	4	3				
SENDAI	2.34	216.8	0	34	-3	1	3	-1				
MORI	2.51	321.3	0	42	3	1	15	6				
MURORAN	2.51	329.9	0	41	2	1	8	-1				
SAKATA	2.53	241.2	0	40	1	1	10	1				
TOMAKOMAI	2.61	341.9	0	42	2	1	15	4				
YAMAGATA	2.63	224.3	0	39A	-2	1	11	-1				
OBIHIRO	2.79	7.9	0	47	4							
HUKUSIMA	2.96	216.3	0	43	-2	1	21	1				
SAPPORO	3.08	341.6	0	47K	0	1	26	3				
KUSIRO	3.10	24.0	0	46	-1	1	20	-4				
SUTTSU	3.22	326.0	0	53	4							
ONAHAMA	3.49	204.1	0	59	6	1	37	4				
SHIRAKAWA	3.59	213.2	0	54	0	1	40	4				
NIIGATA	3.60	232.8	0	54	0	1	57	21				
ASAHIGAWA	3.63	356.5	0	55A	0	1	40	3				
NEMURO	3.84	33.5	0	55	-3	1	35	-7				
RUMOE	3.87	348.6	1	1	3	1	50	7				
ABASHIRI	4.04	16.6	0	51	-10							
AIKAWA	4.05	239.6	1	2	1	1	56	8				
MITO	4.15	205.4	0	58K	-4	1	44	-6				
UTUNOMIYA	4.22	212.4	1	2	-1	1	59	7				
KAKIOKA	4.39	207.4	1	2	-3							
TUKUBASAN	4.42	208.1	1	2K	-4	1	49	-8				
TAKADA	4.62	230.0	1	9	0	2	1	-1				
TYOSI	4.66	198.6	1	5	-4							
MAEBASI	4.70	218.3	1	9A	-1	2	12	8				
KUMAGAYA	4.77	214.0	1	8	-3	2	4	-2				
NAGANO	4.95	226.7	1	14	1	2	30	20				
HONGO	5.00	208.3	1	17	3						2	51
OIWAKE	5.01	221.7	1	14	0	2	26	14				
TOKYO C.M.O.	5.03	208.3	1	13	-1	2	15	3				
MATUSIRO	5.04	225.6	1	14K	-1							
TITIBU	5.04	215.4	1	14	-1	2	19	7				
YOKOHAMA	5.29	207.9	1	26	8	2	29	10				
WAZIMA	5.30	240.3	1	10	-8							
WAKKANAI	5.31	352.4	1	21K	3	2	37	18				
MATUMOTO	5.38	225.0	1	20	1							
KOHU	5.54	217.3	1	21	0	2	31	6				
HUNATU	5.58	214.9	1	22	0	2	16	-10				
MERA	5.70	204.3	1	32	8							
AJIRO	5.83	210.2	1	21	-5	2	26	-6				
TAKAYAMA	5.86	228.6	1	24	-2							
OSIMA	5.98	207.0	1	34	6							
IIDA	6.01	221.2	1	30	2	2	49	13				
SHIZUOKA	6.19	214.6	1	37	6	2	44	3				
OMAESAKI	6.58	214.0									1	59
GIHU	6.66	226.4	1	37	0	2	15	-38				
HAMAMATU	6.71	217.6	1	46	8	3	2	8				
NAGOYA	6.73	224.1	1	38	0	3	3	9				
Y.-SAKHLINSK	6.86	0.2	1	38A	-2	2	58	0				
HIKONE	7.05	228.3	1	44	1	3	14	12				
KAMEYAMA	7.24	224.9	1	50	5	3	14	7				
HATIDYOZIMA	7.41	199.1	1	48	0							
KYOTO	7.53	229.3	1	50	1	3	21	7				
ABUYAMA	7.73	229.2	1	50	-2							
OSAKA	7.91	228.2	1	59	5							
VLADIVOSTOK	8.60	293.6	2	4	0	3	52	12				
TAKAMATU	9.01	232.4	2	27	17							
OOITA	11.24	235.5	2	37	-3	5	15	30				

CHANGCHUN	13.43	291.5	3	10	1	5	41	3
ZO-SE	19.64	249.3	4	23A	-3			
PEKING	20.26	278.2	4	29	-4			
NANKING	20.89	254.7	4	36	-3	8	37	13
YAKUTSK	23.27	344.5	5	1A	-2	9	10	3
ULAN-BATOR	26.68	298.8	5	36	1			
LANCHOW	30.68	274.9	6	8	-3			
ESEN BULAK	33.98	296.2	6	40	0			
KUNMING	36.50	258.1	7	1A	0			
LHASA	43.10	272.5	7	59	3			
SEMIPALATNSK	43.90	305.1	8	1	-1			
SHILLONG	44.51	266.9	8	6	-1			
COLLEGE	45.94	33.8	8	20	1			
CHATRA	47.45	271.5	8	32A	1			
ALMATA-2	47.73	296.3	8	34	1			
FRUNSE	49.78	296.7	8	49A	0			
KHEYS	49.80	347.7	8	48	-1			
MOULD BAY	53.27	17.2	9	15	0			
SVERDLOVSK	53.50	317.4	9	17K	0			
KHOROG	54.11	291.7	9	22	1			
NEW DELHI	54.16	279.2	9	19A	-3			
LAHORE	54.84	283.9	9	26	0			
WARSAK DAM	55.70	287.9	9	33A	0			
ALERT	56.96	3.8	9	36	-6			
RESOLUTE	59.34	15.1	9	57A	-1			
CHARTERS TS.	60.02	176.1	10	7	4			
APATITY	60.26	335.3	10	3	-2			
KEVO	60.88	339.0	10	8	-1			
QUETTA	60.99	286.4	10	10	0			
SODANKYLA	62.48	336.9	10	19A	-1			
TROMSOF	63.09	340.9	10	23	-1			
VANNOVSKAYA	63.22	298.2	10	23	-1			
KIRUNA	63.96	339.1	10	28A	-1			
KAJAANI	64.23	333.7	10	31A	0			13 2 PP
PENTICTON	65.26	45.6	10	28	-10			
MOSCOW	65.35	323.1	10	39K	1			
UMEA	66.84	336.0	10	47A	-1			
NURMIJARVI	67.66	331.8	10	53A	0			
HELSINKI	67.78	331.4	10	54	0			
HUNGRY HORSE	68.84	44.1	11	1	1			
KIROVOBAD	69.37	306.1	11	4	1			
SKALSTUGAN	69.37	338.7	11	3	0			
UPPSALA	70.59	334.0	11	10A	-1			
EUREKA	73.14	52.5	11	27	1			
SIMFEROPOL	73.80	315.5	11	32	2			
KARLSKRONA	74.11	332.4	11	31	-1			
GOTEBORG	74.12	335.0	11	32	0			
CHINA LAKE	74.39	56.3	11	34	1			
DUGWAY	74.58	50.3	11	35K	1			
COPENHAGEN	75.58	333.5	11	31A	-9			
UZHGOROD	77.09	324.0	11	49	0			
COLLMBERG	78.89	330.5	11	59A	0			12 29
PRUHONICE	79.34	328.9	12	2	1			
JENA	79.72	331.0	12	2	-1			12 17
KASPERSKE H.	80.40	328.9	12	8A	1			12 59
ALBUQUERQUE	81.83	50.8	12	16	2			
STUTTGART	82.34	331.0	12	18	1			
LJUBLJANA	82.46	326.5	12	18	1			
GARCHY	85.81	333.7	12	35	1			
ROSELEND	85.91	330.8	12	36	1			
WICHITA MTS.	86.52	46.4	12	39	1			
ROLLA	87.62	40.2	12	43	0			
FLORISSANT	87.66	38.7	12	45	2			
ST. LOUIS 1	87.85	38.7	12	45	1			
BREBEUF	88.73	24.6	12	50	2			
WILKES	109.02	193.1	15	21A	777			
BULAWAYO	120.90	268.9	18	47	1			

JULY 16 2.H 4.M 52.5 EPICENTRE -52.10 139.13 DEPTH= 0.KM

A=-0.46639 B= 0.40364 C=-0.78712 D= 0.6544 E= 0.7561
G= 0.5952 H=-0.5151 K=-0.6168 HT= -6.2

SE= 2.22

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MACQUARIE I.	12.10	109.2	2 57	1				
DUMONT	14.62	178.6	3 28	-2				
MELBOURNE	14.85	18.3	3 31	-2				6 28
ADELAIDE	17.13	358.9	4 1	-1	7 11	-1		
CANBERRA	18.20	26.7	4 16K	1	7 40	3	4 20	4 28 PP
WILKES	20.16	214.1	4 38	0	8 17	-3		8 42
RIVERVIEW	20.22	30.1	4 38A	-1	8 22	1		
ROXBURGH	20.86	83.5	4 42	-4	8 33	-1		
CAPE HALLETT	24.37	157.5	5 20	U				
PERTH	26.35	310.8	5 43	4	10 28	17		12 17
WELLINGTON	26.48	80.1	5 46	6				
BRISBANE	26.73	27.8	5 43	U	9 46	-31		
MIRNY	26.82	219.7	5 44	1	10 46	27		
SCOTT BASE	27.75	167.8	5 52	0				
CHATEAU	28.22	77.3						6 31
CHARTERS TS.	32.43	12.6	6 32	-1				
SOUTH POLE	38.08	180.0	7 19	-3				
MAWSON	38.44	216.8	7 24K	-1	13 25	4	7 29	
DARWIN	40.18	347.4	7 35	-4				
BYRD STATION	41.07	164.9						17 8
PORT MORESBY	43.08	11.6	8 2A	-1	14 32	2		17 40 SS
SUVA	45.77	57.2			15 3	-6		
HONIARA	45.82	29.3	8 28	3	15 12	3		
RABAUL	48.96	17.4	8 50	U				
HONG KONG	77.24	336.4						21 39
KIMBERLEY	81.18	234.1	12 19	U				
BULAWAYO	86.20	241.9						12 47 PCP
SHILLONG	87.69	318.4	12 51A	U				
MATUSIRO	88.28	359.3	12 53	-1	23 43	5		
BROKEN HILL	90.89	245.0	13 10	4				
EUREKA	128.41	72.6	19 9	U				
COLLEGE	129.42	31.9	19 10	U				
DUGWAY	130.73	73.9	19 13	U				
ALBUQUERQUE	131.17	83.6	19 14	U				22 38
WICHITA MTS.	135.86	89.7	19 23	U				22 59 SKP
TULSA	138.37	90.6	19 24	-3				40 36 SS
MOULD BAY	142.54	22.7	19 31	-4				
KAJAANI	143.71	316.3	19 35	-2				
HELSINKI	143.89	309.3	19 36	-1				
NURMIJARVI	144.14	309.8	19 37	0				
SODANKYLA	144.80	321.7	19 39A	1				
KEVO	144.96	325.8	19 37	-2				
PRUHONICE	145.80	289.0	19 43	3				42 8 SS
PRAGUE	145.91	289.0	19 46	6				20 56
KASPERSKE H.	146.00	287.1	19 35	-5				19 56
COLUMBIA	146.07	106.3	19 43	2				
PAVIA	146.78	278.2	19 42	U				
UMEA	146.89	314.7	19 44	2				
KIRUNA	147.21	322.1	19 45	2				
UPPSALA	147.37	307.0	19 49	6				
KARLSKRONA	147.46	299.9	19 48	5				
TROMSOE	147.77	325.4	19 42	-1				
JENA	147.92	289.1	19 47	3				19 59
STUTTGART	148.40	284.2	19 48	4				
CHAPEL HILL	148.57	105.8	19 49	4				
ROSELEND	148.59	277.4	19 53	8				
COPENHAGEN	149.02	298.0	19 51	6				
STRASBOURG	149.22	283.1	19 58	12				25 20
BESANCON	149.72	279.7	19 59	12				
GOTEBORG	149.77	301.8	19 58	11				
GRANADA	149.96	255.1	20 19	32				43 13 SS
MALAGA	150.12	253.5	19 59A	12				
SKALSTUGAN	150.39	313.6	19 54	6				
MORGANTOWN	150.44	99.3	19 53	5				
CLERMONT-FD.	150.78	275.2	19 51	3				20 16
WITTEVEEN	151.44	290.5	20 21	31				
GARCHY	151.51	277.9	19 58	9				
DOURBES	151.73	284.2	19 56	6				
TOLEDO	151.96	258.8	19 58	8				48 58 SSS
DE BILT	152.08	288.5						43 8 SS
THULE	153.41	14.1	19 55	3				
FOLINIERE	154.29	278.7	20 10	17				

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

JULY 16 9.H 25.M 58.S EPICENTRE -13.16 167.07 DEPTH= 204.KM

A=-0.94938 B= 0.21788 C=-0.22630 D= 0.2237 E= 0.9747
G= 0.2206 H=-0.0506 K=-0.9741 HT= 6.1

DEPTH OF FOCUS= 0.027R

SE= 1.40

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PORT VILA	4.69	165.3	1 11A	-1	2 4	-3		
KOUMAC	7.82	199.6	1 52K	0	3 19	0		
HONIARA	7.91	297.2	1 51K	-2	3 21	0		
NOUMEA	9.10	183.7	2 8A	-1	3 49	0		
SUVA	12.00	115.8	2 47	1	5 2	6		3 12
RABAUL	17.20	299.9	3 54	4				
BRISBANE	19.47	221.2	4 13	0	7 42	5		
PORT MORESBY	19.89	278.8	4 17	-1	7 52	7		8 34 SS
AFIAMALU	20.57	94.5	4 23	-1				
CHARTERS TS.	21.09	248.2	4 31	2	8 15	8		
ONERAHI	23.45	165.0	4 56	4				
RIVERVIEW	25.16	212.5	5 9	1				6 25
KARAPIRO	25.79	164.5	5 14A	0			5 47	6 14 *SP
TARATA	26.72	167.3	5 24	1				
CHATEAU	26.99	165.4	5 26A	1				
TUAI	27.05	162.5	5 25K	-1				
CANBERRA	27.44	213.4	5 29A	0				8 43 PCP
COBB RIVER	28.25	170.9	5 38	2				
WELLINGTON	28.81	167.9	5 39	-2				
GEBBIES PASS	30.80	172.1	5 58	-1				
MELBOURNE	31.48	214.8	6 4	-1				
ROXBURGH	32.26	177.0	6 10	-2				
ADELAIDE	33.58	224.8	6 23A	0				8 58
MACQUARIE I.	41.73	187.1	7 30	-1				
HONOLULU	48.40	45.4			15 12	5		19 58 SS
MUNDARING	50.08	239.3	8 36	0				
DUMONT	56.42	192.6	9 22	-1				
MATUSIRO	56.44	332.2	9 21A	-2				
ZO-SE	62.28	315.9	10 1A	-2	18 12	1		
HONG KONG	62.70	303.8	10 6	1				
CANTON	63.75	304.1	10 11	-1	18 33	4		
Y.-SAKHLINSK	63.76	341.7	10 12	0				
NANKING	64.49	315.4	10 17	0				
VLADIVOSTOK	64.60	332.2	11 0	42				
SCOTT BASE	64.69	180.1	10 18	0				
PETROPAVLOVK	66.31	354.5	10 28	-1	19 6	6		
CHANGCHUN	68.31	328.7	10 42	1				
PEKING	70.93	320.9	10 57A	0	19 59	4		
SIAN	72.61	312.5	11 8A	1	20 18	4		
KUNMING	73.33	301.5	11 13A	2	20 27	5		
BYRD STATION	74.25	170.0	11 16	-1				
CHENGTU	74.61	307.2	11 19A	0	20 38	2		
PAOTOW	75.11	318.6	11 22	1				
SOUTH POLE	76.92	180.0	11 32	0				
LANCHOW	77.13	312.1	11 33A	0				
YAKUTSK	80.47	343.1	11 47A	-4	21 37	-1		
MAWSON	83.25	202.0	12 4A	-1				12 43
BERKELEY	83.29	48.8						12 52
CALISTOGA	83.35	47.9						12 55
LICK	83.55	49.4	12 8A	1				12 54
PRIEST	83.84	50.8						12 56
PASADENA	85.07	53.4						13 2
RENO	85.68	47.9						13 4
CHINA LAKE	86.06	52.0	12 21	2				13 6
VICTORIA	86.69	38.6						13 9
BOULDER CITY	88.25	52.6	12 29	0				13 16
EUREKA	88.46	49.0	12 31	1				13 18 30 6 PKKP
PENTICTON	89.31	38.8	12 34	0				
DUGWAY	91.00	49.0						13 30
GLEN CANYON	91.03	52.4						13 29
BANFF	92.40	37.9						13 35
HUNGRY HORSE	92.49	40.9						13 36
BUTTE	92.79	43.5						13 38
FLAMING GRGE	93.70	49.0						13 40
ALBUQUERQUE	94.57	55.3						13 46
APATITY	117.85	341.7	18 22	0				
SODANKYLA	119.95	343.5	18 20	-6				
KIRUNA	121.21	345.9	18 29	0				
KIROVOBAD	121.72	309.8	18 31	1				

UMEA	124.37	342.9	18 36	1	19 25		
NURMIJARVI	125.35	338.3	18 38	1	19 28		
HELSINKI	125.47	337.8	18 39	2			
BULAWAYO	127.42	231.7	18 43K	2			
UPPSALA	128.23	340.9	18 43A	1			
GOTEBORG	131.70	342.4				22 0 SKP	
KARLSKRONA	131.79	339.0				22 1 SKP	
UZHGOROD	134.20	327.7	18 54	0			
LWIRO	135.86	252.7	19 0	3			
COLLMBERG	136.56	336.5	18 59K	1		22 16	
PRUHONICE	136.95	334.1	19 0	1			
BRATISLAVA	137.11	330.5	19 1K	2		22 18	
JENA	137.40	337.2	19 0	0			
STUTTGART	140.03	337.1	19 6	2		22 26 PP	
DOURBES	140.47	342.3	19 7	2			
STRASBOURG	140.74	338.2	19 7	1			
BANDEIRA	141.90	223.8	19 5K	-3			
FOLINIERE	143.03	346.3	19 14	4			
GARCHY	143.44	341.6	19 10	-1			
MESSINA	144.48	319.7	19 12	0	19 59	22 45 PP	
CLERMONT-FD.	144.77	340.4				20 13	
BANGUI	147.66	257.2	19 21	3	20 17		
TOLEDO	152.26	345.2	19 27K	3	19 34	19 46 PKP2	

JULY 16 12.H 54.M 42.S EPICENTRE 62.28-152.46 DEPTH= 47.KM

A=-0.41468 B=-0.21626 C= 0.88390 D=-0.4624 E= 0.8867
G=-0.7837 H=-0.4087 K=-0.4677 HT= -9.6

DEPTH OF FOCUS= 0.002R

SE= 2.00

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
COLLEGE	3.33	36.5	0 52	0				
MOULD BAY	17.83	25.3	4 6	-1				
VICTORIA	21.24	117.0	4 44	-1				
PENTICTON	22.25	110.5	4 55A	0				
SEATTLE	22.38	116.9	4 59K	3	9 7	13		
BANFF	22.76	102.2	5 0	0				
RESOLUTE	23.25	34.6	5 3	-1				
HUNGRY HORSE	25.46	105.3	5 26	0	9 48	1		
MAGADAN	26.96	290.1	5 40A	0				
PETROPAVLOVK	27.11	272.7	5 41A	0	10 23	9		
BUTTE	27.87	107.1	5 47	-1				
BOZEMAN	28.82	105.8	5 57	1				
ALERT	28.82	15.9	5 56	0				
THULE	29.53	28.5	6 1	-2			6 54 PP	
CALISTOGA	29.86	128.4	6 6A	0				
RENO	30.12	123.8	6 17	9				
BERKELEY	30.66	128.7	6 6K	-7	11 13	2		
LICK	31.36	128.3	6 19A	0				
EUREKA	31.71	118.9	6 23	1			9 12 PCP	
SALT LAKE C.	32.37	112.6	6 28	0				
DUGWAY	32.43	114.3	6 28A	0	11 29	-9	9 14 PCP	
PRIEST	32.78	128.0	6 32A	1				
FLAMING GRGE	33.31	109.6	6 35	-1				
RAPID CITY	33.62	99.5	6 42	3	12 3	6		
PRICE	33.77	112.6	6 40	0				
NORD	34.41	10.5	6 46	1				
BOULDER CITY	35.17	120.7	6 53	1				
PASADENA	35.48	126.4	6 55	1	12 32	6	7 13	
GLEN CANYON	35.66	116.0	6 56	0				
KHFYS	36.31	351.9	7 1	-1				
ALBUQUERQUE	39.56	111.9	7 30	1			9 36	
TUCSON	40.04	119.0	7 35	2				
MANHATTEN	40.51	98.0	7 36A	-1	13 37	-5		
KIPAPA	41.01	187.9	7 39	-2				
HONOLULU	41.13	188.0	7 40	-2	13 59	8	9 37	
SCHEFFERVLLE	42.16	59.3	7 50A	0	14 12	6		
HAWAII V.OB.	42.85	183.9	7 59	3				
SCORESBY SD.	43.08	22.0	7 59	1				
WICHITA MTS.	43.26	103.9	7 59A	0	14 28	6	9 54 PP	
TULSA	43.55	100.1	8 0	-1	14 30	3		
FLORISSANT	43.73	92.6	8 2	-1				

ROLLA	43.73	94.8	8	2A	-1	14	29	0			
ST. LOUIS 1	43.92	92.6	8	4	0	14	35	3			
MIZUSAWA	45.48	271.5	8	20	-3						
AMDERMA	46.05	344.3	8	19	-2	15	6	3			
BREBEUF	46.21	72.9	8	22A	-1	15	7	2	9	36	10 12 PP
VLADIVOSTOK	46.61	282.6	8	25A	-1						
PENNSYLVANIA	47.96	80.2	8	36A	0						
TROMSOE	48.24	4.0	8	39	0						
KEVO	48.25	0.2	8	39	0						
REYKJAVIK	48.63	26.4	8	42	0						
MATUSIRO	48.94	272.0	8	44A	0	15	48	5			
CHANGCHUN	49.03	288.2	8	45	0						
PALISADES	49.61	76.9	8	48	-1	15	51	-2			
SIDA	49.72	24.6	8	54	4						
WASHINGTON	49.85	81.1	8	50	-1	15	56	0			
KIRUNA	50.09	3.5	8	52	-1	15	57	-2			11 25
APATITY	50.40	357.1	8	56K	1	16	10	6			
SODANKYLA	50.65	0.5	8	56A	-1						
HALIFAX	51.29	66.2	9	1A	-1						
ABUYAMA	51.53	273.0	9	3	-1						
COLUMBIA	51.99	88.1	9	7	0						
ULAN-BATOR	53.42	304.6	9	18A	0	16	53	8			
UMEA	54.10	4.0	9	22	-1	16	44	-10			
PEKING	56.11	292.4	9	37A	0	16	29	-52			
BERGEN	56.47	13.0	9	47	7						
NURMIJARVI	57.52	1.7	9	47A	0						
HELSINKI	57.86	1.5	9	49	-1						10 41 PCP
UPPSALA	57.96	5.9	9	48A	-3						10 19
PAOTOW	58.25	297.4	9	52	-1						
PULKOVO	58.26	358.3	9	51K	-2	17	49	0			
SVERDLOVSK	58.47	339.4	9	53K	-1	17	53	1			
ESEN BULAK	58.63	311.0	9	56A	1	18	6	12			
GOTEBORG	59.75	9.6	10	2	-1						
SEMIPALATNSK	60.14	324.1	10	4	-2						
DURHAM	61.08	18.8	10	12A	0	18	34	8			
ZO-SE	61.33	282.7	10	14A	0	18	35	6			
KARLSKRONA	61.53	7.6	10	13	-2						10 42
NANKING	61.61	285.2	10	16A	0	18	37	4			
COPENHAGEN	61.79	9.6	10	16A	-1	18	49	14			
MOSCOW	62.07	353.6	10	18A	-1	18	43	5			
WITTEVEEN	64.07	13.9	10	24K	-8						
SIAN	64.08	294.4	10	32A	0	19	11	7			
KEW	64.47	18.9	10	34	0	19	11	3			
DE BILT	64.60	15.1	10	38	3						
LANCHOW	64.66	299.4	10	35A	-1	19	18	7			
BENSBERG	65.96	14.0	10	43A	-1						
COLLMBERG	66.18	9.9	10	44A	-1						13 14 PP
JENA	66.43	10.9	10	46	-1	19	28	-4			20 8 PS
FELDBERG	66.83	13.2	11	3	13						
FOLINIERE	67.07	19.7	10	57	6						
PARIS	67.47	17.6	10	56	2						
PRAGUE	67.52	9.1	10	56	2						
HEIDELBERG	67.67	13.2	10	54	-1						
RACIBORZ	67.75	6.5	10	58	3						11 24 PCP
KRAKOW	67.86	5.3	10	55	-1	19	54	5			
STUTTGART	68.35	12.9	10	58	-1						11 26
STRASBOURG	68.37	14.0	10	59	0						13 30
FRUNSE	68.63	324.7	11	1A	0	20	7	8			
EBINGEN	68.90	13.2	11	2	0						
GARCHY	69.05	17.6	11	4	1						12 53
CHENGTU	69.26	296.4	11	4	-1	20	11	5			
VIENNA-H.	69.46	7.9	11	6A	0						12 17
BESANCON	69.47	15.5	11	6	0						
BRATISLAVA	69.59	7.4	11	5A	-2						13 35
CHUR	70.27	13.0	11	12	1						
CLERMONT-FD.	70.54	17.9	11	13	1						
KISHINEV	71.05	359.1	11	15A	-1						
ROSELEND	71.08	15.3	11	16	0						
TASHKENT	71.43	328.1	11	17A	-1	20	36	5			
LJUBLJANA	71.52	9.5	11	20	2						
CANTON	71.75	284.8	11	20A	0	20	41	6			
HONG KONG	72.06	283.7	11	22	0	20	44	5			
SAN JUAN	72.22	84.4	11	21	-1						
ISOLA	72.62	15.3	11	28	3						
SIMFEROPOL	73.00	355.1	11	27A	0	20	55	6			
MONACO	73.11	15.1	11	29	1						
COIMBRA	73.84	27.9	11	31	-1						
KUNMING	74.64	294.6	11	37	0						
TOLEDO	75.05	24.7	11	40K	1	21	52	40			14 32 PP

ANTIGUA	75.28	81.3	11	40	0						
SOFIA	75.32	3.2	11	41	0					13	9
LHASA	75.33	306.4	11	43A	2						
TIFLIS	75.42	346.7	11	42A	1						
KIROVOBAD	76.31	345.4	11	46	0	21	58	32			
VANNOVSKAYA	77.12	335.7	11	50	-1						
WARSAK DAM	77.73	323.8	11	52	-2						
GRANADA	77.75	25.0	11	57A	3	21	49	7		14	57 PP
MALAGA	78.03	25.8	11	56A	0	21	46	1		14	54 PP
ST. VINCENT	79.01	82.8	11	58	-3						
LAHORE	79.23	320.7	12	4	2						
CHATRA	79.31	308.3	12	5A	2						
ATHENS	80.05	3.1	12	6A	-1					13	10
TFHERAN	80.44	340.5	12	11	2						
NEW DFLHI	81.12	317.3	12	9A	-3						
TRINIDAD	81.15	84.1	12	11	-2						
CHITTAGONG	81.58	302.5	12	21	6						
QUETTA	82.58	326.3	12	20	0						
KSARA	84.01	353.0	12	28	1					15	44 PP
BENI ABBES	84.87	25.6	12	31	-1					12	36 PCP
HUANCAYO	94.67	106.9	13	18	0						
CHARTERS TS.	95.20	235.9	13	20	0					17	13
PANGUI	113.18	9.7	18	31	-2						
LWIRO	120.11	358.5	18	48K	2						
BANDEIRA	131.62	18.5	19	10A	2						
DUMONT	137.69	213.1	19	16	-4						
BULAWAYO	137.89	358.5	19	18	-2						
SCOTT BASE	142.08	193.0	19	24	-4						
BYRD STATION	143.31	170.9	19	25	-5						
WILKES	146.28	226.2	19	34A	-1					20	4
KIMBERLEY	146.42	4.4	19	37	2						
SOUTH POLE	152.12	180.0	19	41	-3						
MIRNY	152.59	232.3	19	50	5						
MAWSON	164.29	234.9	19	58A	0	26	29	-27	21 8	20	50 PKP2

JULY 17 5.H 32.M 5.S EPICENTRE -42.95 -75.46 DEPTH= 0.KM

A= 0.18429 B=-0.71074 C=-0.67889 D=-0.9680 E=-0.2510
G=-0.1704 H= 0.6572 K=-0.7342 HT= -2.8

SE= 1.47

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
CONCEPCION	6.65	24.4	1	37	-4	3	46	47				
SANTA LUCIA	10.22	23.3	2	29	-2	4	31	3			2	45 PPP
ANTOFAGASTA	19.65	13.9	4	32	-1							
LA PAZ	27.10	15.6	5	48	2							
HUANCAYO	30.79	0.3	6	21	1							
BYRD STATION	40.49	190.8	7	42	0						8	46
SOUTH POLE	47.24	180.0	8	37	0							
BOGOTA	47.36	1.9	8	38	0	15	36	4				
CHINCHINA	47.69	359.8	8	40	0	15	38	2				
CARACAS	53.76	10.4	9	25K	-1						16	59
SCOTT BASE	53.77	193.4	9	26	0							
TRINIDAD	54.87	17.0	9	34K	-1						21	47 SS
GRENADA	56.16	16.2	9	44	0							
ST. VINCENT	57.34	16.5	9	51	-1							
ST. KITTS	61.12	13.9	10	14	-4							
SAN JUAN	61.63	10.1	10	17	-5							
MAWSON	65.37	163.7	10	45A	-1	19	31	1				
DUMONT	67.38	194.5	10	57	-2							
MIRNY	70.47	175.1	11	15	-3	20	34	3				
WILKES	70.95	182.6	11	20K	-1	20	39	2	11	30	11	45 PCP
HOUSTON	74.60	342.1	11	43	0							
ROXBURGH	74.79	221.3				21	23	3				
WELLINGTON	74.99	227.3	11	45	0	21	57	54				
CHATEAU	76.02	229.2	11	51	0							
KARAPIRO	76.90	230.1	11	56	0							
M.BOUR	78.21	57.6	12	5	2	22	3	5				
CHAPEL HILL	78.56	357.0	12	4	-1							
BANDEIRA	79.13	100.2	12	39K	3	22	14	7	12	15		
LUBBOCK	79.90	337.9	12	12	0							
WICHITA MTS.	80.14	340.8	12	13K	-1	22	19	1			15	16 PP
TULSA	80.65	343.4	12	15	-1	22	23	0				
WASHINGTON	81.48	358.7	12	21	0						15	17 PP
TUCSON	81.56	330.3	12	23	2							

TUCSON TELE.	81.60	330.4	12	23	2						
ROLLA	81.85	346.9	12	21K	-2	22	34	-2			
MORGANTOWN	82.30	356.5	12	24	-1						
ST. LOUIS 1	82.31	348.4	12	24	-1	22	40	0			
BLOOMINGTON	82.37	351.4	12	23K	-2	22	35	-6			
FLORISSANT	82.49	348.3	12	25	-1	22	35	-7			
ALBUQUERQUE	82.54	334.7	12	27	1						
LUANDA	83.09	95.6	12	31	2						
PENNSYLVANIA	83.39	358.2	12	30K	-1						
PALISADES	83.59	1.2	12	31K	-1	22	45	-8			
MANHATTEN	83.98	343.7	12	33K	-1	22	54	-3			
WESTON	85.03	3.1	12	39	0	23	11	3			
CHICAGO JSA.	85.18	350.9	12	38	-1						
PASADENA	86.09	325.7	12	46	2	22	51	-27	12	57	
BULAWAYO	86.30	114.0	12	46K	1						
BOULDER CITY	86.37	329.0	12	46	1						
HALIFAX	87.83	8.4	12	53K	1						
RREBEUF	88.08	1.3	12	53K	-1	23	39	2			16 23 PP
LARAMIE	88.17	337.8	12	54	0						
PRICE	88.19	333.4	12	54K	0						
PRIEST	88.84	324.9	12	59K	2						
FLAMING GRGE	88.94	335.0	12	57	-1						
SHAWINIGAN	89.15	1.9	12	58	-1						
DUGWAY	89.39	332.3	13	OK	0						24 2
SALT LAKE C.	89.58	333.2	13	1	0						
EUREKA	89.88	329.8	13	3	1						
RAPID CITY	90.13	340.4	13	3	0						
BROKEN HILL	90.17	109.9	13	5K	1						
LICK	90.28	324.9	13	5K	1						
BERKELEY	90.99	324.8	13	9K	2	24	17	14			18 13 PP
RENO	91.40	327.3	13	9	0						
MELBOURNE	91.60	210.9	13	10	0						
CALISTOGA	91.77	325.0	13	13A	2						
PONTA DELGDA	92.17	37.3	13	14	1	24	21	7			16 59 PP
CANBERRA	92.17	215.0	13	13A	0						
BUTTE	94.52	335.1	13	23	-1						
HUNGRY HORSE	97.05	335.2	13	35	0						
HONOLULU	99.06	290.5	13	50	6	24	31	9			17 52 PP
MALAGA	102.28	51.1	14	1	2						20 17 PP
GRANADA	103.06	51.2									17 25 PP
ALMERIA	103.48	52.1									18 27 PP
TOLEDO	104.68	48.9	14	11	2	24	49	0			18 29 PP
TORTOSA	107.87	50.7	17	46	777						18 55
CLERMONT-FD.	112.53	48.0									19 30
GARCHY	113.44	46.7	19	31	51						22 0
PARIS	114.08	45.1	19	37	56						22 7
KEW	114.33	41.6									19 40 PP
MESSINA	115.36	60.7									19 52
ROME	115.60	55.8									19 38 PP
DURHAM	115.80	38.2									19 55 PP
FLORENCE X.	115.95	53.5									19 38 PP
DOURBES	115.96	44.9	18	49	4						19 51 PP
STRASBOURG	116.75	47.6				25	13	-25			19 56 PP
DE BILT	117.43	43.3									20 3 PP
STUTTGART	117.68	48.1	18	49	1						20 0 PP
TARANTO	117.74	59.4									19 15
TRIESTE	118.48	52.9									20 9 PP
THULE	119.18	1.9									20 2
JENA	120.11	46.9	18	52	-1						20 17 PP
KASPERSKE H.	120.25	49.5	18	52	-1						20 19 PP
ATHENS	120.57	65.0									20 17 PP
COLLMBERG	121.07	47.1	18	55	0						
PRAGUE	121.22	48.9									20 25
PRUHONICE	121.24	49.0									20 28 PP
COLLEGE	121.25	331.6	18	54	-1						
MOULD BAY	122.16	348.7	18	56	-1						
BUDAPEST	122.53	53.3	18	59	1						20 47 PP
GOTEBORG	123.72	40.2	18	59	-1						
KRAKOW	124.30	51.0	19	15	14						
KARLSKRONA	124.77	42.9	19	1	-1						
UZHGOROD	125.01	53.4	19	3	0						21 7 PP
ALERT	125.36	2.1	19	3K	0						
KSARA	126.77	75.5	19	8	2				19	28	21 12 PP
UPPSALA	127.30	39.3	19	6A	-1						22 23 PKS
UMEA	129.85	35.1	19	11	-1						21 17 PP
SIMFEROPOL	130.75	62.0	19	15	1						22 53 PKS
NURMIJARVI	130.83	40.1	19	12	-2						22 36 PKS
HELSINKI	130.88	40.6	19	12	-2						

TROMSOE	130.97	27.5	19	13	-1		
KIRUNA	131.05	30.0	19	14	0	21	22 PP
KAJAANI	133.11	35.9	19	18	0		
SODANKYLA	133.28	31.3	19	17	-1	22	49 PKS
PULKOVO	133.36	42.0				22	45 SKP
APATITY	135.90	31.5	19	21	-2	22	3 PP
MOSCOW	136.28	48.8	19	24	0	22	3 PP
TIFLIS	136.65	70.4	19	19	-5		
SHIRAZ	136.68	90.2	19	35	10	20	49 PP
GORIS	136.84	74.0	19	42	17	29	37 SKKS
KHEYS	138.82	10.4	19	26	-2	22	16 PP
TEHERAN	138.86	81.6	19	30	1	25	31 PP
POONA	144.44	123.6	19	38K	0		
VANNOVSKAYA	144.66	82.1	19	39	0		
QUETTA	147.50	100.6	19	45	1		
MANILA	148.43	211.8	19	54	9		
TIKSI	148.87	345.4	19	43	-3	23	20 PP
SVERDLOVSK	149.08	47.9	19	45	-1		
TUKUBASAN	151.93	268.2	19	48A	-2	23	37 PP
WARSAK DAM	152.81	98.1	19	53	1		
MATUSIRO	153.45	267.5	19	48	-5	23	48 PP
LAHORE	153.54	105.4	19	54	1		
NEW DELHI	153.73	114.1	19	53K	0		
TASHKENT	153.92	81.4	19	54	1	20	27 PKP2
KHOROG	154.31	91.1	19	57	3		
DEHRA DUN	155.40	112.1	19	57	2		
YAKUTSK	155.79	330.7	19	54A	-2	24	3 PP
HONG KONG	157.90	204.3	20	21	23		
FRUNSE	158.13	80.0	20	0	1		
CHATRA	158.58	133.1	20	12	13		
CANTON	158.89	203.0	20	1K	1	24	15 PP
SHILLONG	159.79	145.0	20	2	1		
VLADIVOSTOK	160.02	279.9				20	41 PP
SEMIPALATNSK	161.80	57.4	20	12	9		
KUNMING	162.15	174.7	20	4	1		
ZO-SE	162.25	233.7	20	3K	0	24	35 PP
LHASA	162.86	136.4	20	7K	3		
NANKING	164.34	230.7	20	5K	0	24	46 PP
CHANGCHUN	164.87	280.4	20	3	-3	24	40 PP
SIAN	170.66	203.0	20	11K	1	25	16 PP
IRKUTSK	170.67	0.8	20	9	-1	21	28 PKP2
PEKING	170.79	255.5	20	9	-1	25	23 PP
LANCHOW	173.09	175.2	20	12	1	21	39 PKP2
FSEN HULAK	173.16	56.9	20	12	1	25	33 PP
ULAN-BATOR	174.76	342.3	21	10K	58		
PAOTOW	175.26	241.9	20	11	-1	25	40 PP

JULY 17 17.H 20.M 27.S EPICENTRE 42.98 144.57 DEPTH= 57.KM

A=-0.59800 B= 0.42544 C= 0.67926 D= 0.5797 E= 0.8148
G=-0.5535 H= 0.3938 K=-0.7339 HT= -2.8

DEPTH OF FOCUS= 0.004R

SE= 3.27

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KUSIRO	0.13	270.7	0	9K	-1	0	16	-1				
NEMURO	0.82	64.2	0	12A	-5	0	20	-9				
OBIHIRO	1.01	267.1	0	21K	2	0	37	4				
ABASHIRI	1.06	348.6	0	21K	2	0	37	3				
HIROO	1.16	233.3	0	22K	1	0	40	4				
URAKAWA	1.56	238.6	0	28K	2	0	52	6				
ASAHIGAWA	1.79	297.3	0	34K	5	0	58	7				
TOMAKOMAI	2.23	262.0	0	40	5	1	10	8				
RUMOE	2.36	295.3	0	42	5	1	18	13				
SAPPORO	2.36	273.3	0	40K	3	1	13	8				
MURORAN	2.73	257.3	0	45K	3				2	24		
HAKODATE	3.05	248.8	0	49A	2	1	28	5				
MORI	3.08	254.8	0	52	5	1	32	9				
SUTTSU	3.19	268.3	0	52	3	1	33	7				
WAKKANAI	3.21	320.6	0	54K	5	1	49	22				
KURILSK	3.27	45.4	0	48A	-2	1	25	-3				
HATINOHE	3.34	223.9	0	51A	0	1	31	1				
AOMORI	3.56	234.0	0	55K	1	1	40	5				
MIYAKO	3.86	211.4	0	55	-3	1	36	-7				

MORIOKA	4.16	219.1	1	1A	-1	1	46	-4			
MIZUSAWA	4.64	215.2	1	7	-2	1	57	-6			
AKITA	4.68	227.4	1	8	-2	2	5	1			
ISINOMAKI	5.17	209.6	1	13	-4	2	9	-7			
SENDAI	5.47	211.9	1	18	-3	2	16	-7			
YAMAGATA	5.71	215.6	1	21	-3	2	24	-5			
HUKUSIMA	6.09	212.3	1	26	-3	2	32	-7			
NIIGATA	6.58	221.6	1	36	0	2	50	-1			
ONAHAMA	6.65	206.3	1	34	-3	2	43	-9			
SHIRAKAWA	6.74	211.1	1	36	-2	2	48	-7			
AIKAWA	6.91	226.3	1	41	0	2	56	-3			
MITO	7.31	207.0	1	41K	-5	2	59	-10			
UTUNOMIYA	7.37	211.0	1	44	-3						
KAKIOKA	7.54	208.1	1	46	-4	3	7	-8			
TUKUBASAN	7.58	208.5	1	44K	-6	3	3	-12			
TAKADA	7.61	221.6	1	44	-7	3	15	-1			
TYOSI	7.80	202.9	1	48	-5	3	10	-11			
MAEBASI	7.82	214.7	1	51K	-2	3	17	-4			
KUMAGAYA	7.91	212.2	1	52K	-3	3	16	-8			
NAGANO	7.98	220.0	1	56	0	3	30	5			
MATUSIRO	8.08	219.4	1	54A	-3						
OIWAKE	8.10	216.9	1	56	-1	3	24	-4			
WAZIMA	8.11	228.9	1	58	1	3	28	-1			
HONGO	8.15	208.7	1	57	-1	3	20	-10			
TITIBU	8.18	213.1	2	4	6	3	22	-8			
TOKYO C.M.O.	8.19	208.7	1	53	-5	3	20	-11			
MATUMOTO	8.43	219.3	2	0	-2	3	34	-3			
YOKOHAMA	8.45	208.5	2	8	6	3	29	-8			
KOHU	8.66	214.5	2	6	1	3	38	-4			
HUNATU	8.72	213.0	2	12	6	3	10	-34			
MERA	8.85	206.2	2	19	11	3	41	-6			
MISIMA	8.98	211.0	2	12	3	3	39	-11			
AJIRO	8.99	210.1	2	4	-5	3	40	-10			
IIDA	9.10	217.3	2	9	-2	3	48	-5			
OSIMA	9.14	208.0	2	15	3	3	41	-13			
VLADIVOSTOK	9.28	275.2	2	17A	4	4	6	9			2 55
SHIZUOKA	9.33	213.0	2	0	-14	3	53	-6			
GIHU	9.69	221.2	2	18	-1	3	59	-8			
OMAESAKI	9.72	212.7									2 58
NAGOYA	9.78	219.6	2	19	-1	4	14	4			
HAMAMATU	9.82	215.2	2	24	3	4	23	12			
TSURUGA	9.84	224.8	2	21	0	4	11	0			
HIKONE	10.05	222.8	2	26	2	4	14	-2			
KAMEYAMA	10.28	220.5	2	33	6	4	20	-2			
MAIZURU	10.34	226.5	2	29	1						
KYOTO	10.50	223.8	2	28	-2	4	40	13			
HATIDYOZIMA	10.56	202.5	2	29	-2						
TOYOOKA	10.60	228.7	2	30	-1	4	30	0			5 41
ABUYAMA	10.70	223.8	2	29A	-4						
NARA	10.72	222.3	2	38	5						
OSAKA	10.90	223.3	2	36	0	4	53	16			
TOTTORI	10.97	230.6	2	38	1						
SAIGO	11.00	235.8	2	38	1						
OWASE	11.04	219.1	2	33	-5	5	31	51			
KOBE	11.05	224.5	2	36	-2	4	49	8			
SUMOTO	11.46	224.4	2	33	-10						5 21
MATSUE	11.66	233.7	2	32	-14						
SIOMISAKI	11.76	218.9									6 4
TOKUSIMA	11.84	224.6	2	47	-1						
TAKAMATU	11.92	227.0	2	48	-1	6	8	66			
HAMADA	12.63	234.5	3	0	1	5	22	3			
MUROTO	12.69	223.5	3	2	2						8 25
HIROSIMA	12.79	231.8	2	36	-25						
KOTI	12.79	226.3	2	57	-4	5	23	1			
MATUYAMA	12.98	229.2	3	2	-1	5	54	27			
ASHIZURI	13.71	225.5	3	9	-4	5	3	-41			
PETROPAVLOVK	13.75	38.2	3	12	-1						16 3
CHANGCHUN	14.03	280.1	3	17	0	5	56	4			
OOITA	14.08	230.6	3	17K	-1	6	24	31			
HUKUOKA	14.55	234.5	3	22	-2	6	22	18			
ASOSAN	14.63	231.0	3	21	-4						
SAGA	14.83	233.8	3	40	12						
KUMAMOTO	14.90	231.7	3	30	2						
NAGASAKI	15.45	233.4	3	35	0	6	25	0			
KAGOSIMA	15.92	228.9	3	40	-1						4 8
YAKUSIMA	16.81	226.5	3	50	-3						
YAKUTSK	21.01	340.3	4	38K	-3	8	29	3			
PEKING	21.43	271.8	4	45A	0	8	40	6			

ZO-SE	22.04	245.2	4	50A	-1	8	51	6			
NANKING	23.09	250.4	5	1A	0	9	10	6			
PAOTOW	25.76	276.5	5	28A	1	9	53	3			
ULAN-BATOR	26.70	293.8	5	36A	0	10	10	5			
IRKUTSK	28.35	303.3	5	51A	1	10	32	0			
SIAN	29.01	264.5	5	58A	2	10	45	3			
TIKSI	29.75	350.0	6	1	-2					6	52 PP
LANCHOW	31.94	271.4	6	22A	0	11	30	2			
CANTON	32.57	242.5	6	29A	1	11	44	6			
HONG KONG	32.60	240.4	6	31	3	11	33	-5			
BAGUIO CITY	33.46	225.1	6	35	0	11	53	1			
ESEN BULAK	34.10	292.8	6	42K	1	12	8	6			
MANILA	34.68	222.7	6	44	-2	12	12	1			
KUNMING	38.51	256.2	7	20A	2	13	15	6			
SEMIPALATNSK	43.49	303.1	7	59	0	14	25	2			
LHASA	44.44	270.8	8	8A	1						
SHILLONG	46.11	265.5	8	20A	0						
KHEYS	47.36	347.1	8	28A	-2	15	13	-6		10	13 PP
CHATRA	48.83	270.2	8	44A	3	15	44	5			
FRUNSE	49.82	295.2	8	50A	1	15	56	3		10	42 PP
MOULD BAY	50.15	18.1	8	50	-1						
ROKARO	51.59	268.0								11	7
KIPAPA	52.05	95.4	9	20	14						
HONOLULU	52.07	95.6	9	15	9	16	27	3		20	5 SS
PORT MORESBY	52.18	176.8	9	19	12	16	25	-1		20	3 SS
SVERDLOVSK	52.41	316.4	9	8	-1	16	30	1			
DEHRA DUN	53.56	279.6	9	18	1	16	47	3		11	16 PP
HONIARA	54.01	161.1	9	36	16	16	50	0			
ALERT	54.04	4.2	9	18	-3	16	48	-3		19	5 SCS
TASHKENT	54.05	295.8	9	20A	-1	16	56	5		11	26 PP
KHOROG	54.42	290.7	9	24	1	17	1	5			
NEW DELHI	55.14	278.4	9	28A	-1	17	8	2		11	36 PP
HAWAII V.OB.	55.30	95.3	9	38	8	17	16	8			
LAHORE	55.56	283.0	9	31	-1						
WARSAK DAM	56.21	287.1	9	37A	1						
RESOLUTE	56.24	16.0	9	34A	-3						
APATITY	58.30	335.1	9	49A	-2	17	47	0		19	59 SCS
KEVO	58.76	338.8	9	54	0						
THULE	59.04	8.6	9	52	-4					10	46
SODANKYLA	60.45	336.9	10	4A	-2						
VICTORIA	60.64	49.7	10	14	7						
TROMSOE	60.89	341.0	10	7	-2						
QUETTA	61.58	285.9	10	13	0						
KIRUNA	61.83	339.1	10	14A	-1	18	31	-2			
PENTICTON	62.29	47.3	10	16	-2						
KAJAANI	62.33	333.7	10	18A	-1						
CHARTERS TS.	62.77	178.2	10	20	-1						
ASHKABAD	62.99	297.7	10	24	1	18	52	5			
POONA	63.61	271.2	10	39	12						
MOSCOW	63.95	329.0	10	29A	0	19	0	1		10	56 PCP
ROMRAY	64.13	272.2								21	49
PULKOVO	64.32	329.2	10	30A	-2	19	3	-1		19	28 PS
UMEA	64.84	336.1	10	33A	-2	19	10	0			
HUNGRY HORSE	65.84	45.8	10	39	-2						
NURMIJARVI	65.84	332.0	10	40A	-1					39	27 PKPPKP
HELSINKI	65.98	331.6	10	41	-1						
SCORESBY SD.	66.43	355.1	10	44	-1	19	32	3			
CALISTOGA	66.81	58.3	10	46K	-2						
SKALSTUGAN	67.26	339.0	10	48A	-2						
BERKELEY	67.47	58.8	10	51A	-1	19	39	-3			
RENO	67.97	56.1	11	6K	11						
BUTTE	68.08	47.1	10	54	-1						
LICK	68.19	58.9	10	55K	-1						
UPPSALA	68.67	334.3	10	58A	-1	19	56	0			
TEHERAN	68.78	299.4	11	2	2						
PRIEST	69.55	59.4	11	4A	-1						
GORIS	69.58	305.2	11	5A	0	20	12	5		13	42 PP
EUREKA	70.32	54.2	11	8	-1						
BRISBANE	70.43	172.3				20	12	-5		12	23
CHINA LAKE	71.67	58.0	11	15	-2				11 28		
DUGWAY	71.71	51.9	11	15A	-3						
BERGEN	71.73	340.1	11	16	-2						
SHIRAZ	71.85	293.7	11	19A	1	20	28	-5	11 31	20	56 SKS
SALT LAKE C.	71.88	51.0	11	30	11						
GOTEBORG	72.16	335.5	11	20A	6						
KARLSKRONA	72.26	332.8	11	20A	-1					13	12
PASADENA	72.38	59.7	11	32	10	20	41	1			
SIDA	72.70	352.0	11	24	1						

REYKJAVIK	72.70	353.8	11	24	1						
SIMFEROPOL	72.77	315.8	11	23A	-1	20	47	3	14	8	PP
FLAMING GRGE	73.16	49.5	11	25	-1						
PRICE	73.25	51.3	11	27	0						
BOULDER CITY	73.27	56.4	11	25	-2						
WARSAW	73.38	327.7	11	27A	0	20	54	3	21	41	PPS
COPENHAGEN	73.68	334.0	11	29A	0	20	56	2			
LWOW	73.98	324.5	11	31A	0	21	1	4	14	5	PP
RAPID CITY	74.29	43.9	11	44	11	20	57	-4			
KRAKOW	75.50	326.8	11	40	0	21	17	3	11	59	PCP
SKALNATE PL.	76.05	326.1	11	43	0	21	23	3	11	59	PCP
RACIBORZ	76.17	327.7	11	42	-1	21	26	4	21	46	SKS
ABERDEEN	76.37	342.1	11	45A	0	21	30	6	21	50	
COLLMBERG	77.12	331.2	11	47A	-2				14	46	PP
PRAGUE	77.61	329.7	11	53A	1	21	43	6			
PRUHONICE	77.64	329.6	11	52A	0	21	41	3			
ADELAIDE	77.76	184.9	11	51	-1						
BUDAPEST	77.90	325.6	11	50	-3	22	29	49	14	47	PP
WITTEVEEN	77.91	335.4	11	54	1						
JENA	77.92	331.7	11	53	0	21	39	-2	14	53	PP
CANBERRA	78.03	176.3	11	53	-1				12	7	PCP
TUCSON TELE.	78.24	56.8	11	55	0						
VIENNA-H.	78.35	327.6	11	56	0	21	48	3			
DURHAM	78.44	340.8	11	57A	1	21	48	2			
KASPERSKE H.	78.70	329.6	11	58A	0				15	43	
ALBUQUERQUE	78.97	52.3	11	58	-1						
DE BILT	78.99	335.9	11	59	0	23	1	69	23	20	PS
BELGRADE	79.39	323.2	11	53	-8	22	1	5	12	3	PCP
FELDBERG	79.59	333.1	12	14	12						
KSARA	79.60	306.7	12	2A	0	22	13	15	14	55	PP
SOFIA	79.73	320.2	12	5	2	22	27	27	14	38	
HEIDELBERG	80.20	332.5	12	5	-1						
STUTTGART	80.54	331.8	12	8	1	22	10	2	15	12	PP
TUBINGEN	80.82	331.8	12	9	0						
LJUBLJANA	80.88	327.3	12	9K	0				12	36	
DOURBES	80.92	335.2	12	10	1	22	16	4			
KEW	81.12	338.6	12	10	0	22	17	3			
ERINGEN	81.16	331.7	12	12	1						
STRASBOURG	81.22	332.6	12	11	0	22	40	25	15	23	PP
MANHATTEN	81.23	43.5	12	9	-2	22	11	-4			
RAVENSBURG	81.27	331.1	12	11	0						
TRIESTE	81.51	327.5	12	7	-6	22	17	-1	22	35	*SS
PARIS	82.71	335.8	12	20	1						
BESANCON	82.98	333.0	12	13	-7						
ATHENS	83.18	316.9	12	21K	0	22	38	3	23	3	
WICHITA MTS.	83.56	47.7	12	22	-1	23	3	24	15	33	PP
FOLINIERE	83.61	337.6	12	23	0						
GARCHY	83.89	334.8	12	15	-10				12	41	
FLORENCE X.	84.05	328.0	12	29	3						
ROSFLEND	84.12	331.8	12	27	1						
TULSA	84.15	45.2	12	24	-2	22	41	-4	12	38	
ROLLA	84.56	41.5	12	26A	-2	22	46	-3			
FLORISSANT	84.58	40.0	12	26	-2	22	43	-6			
ST. LOUIS 1	84.77	40.0	12	28	-1	22	49	-2			
SHAWINIGAN	84.90	24.9	12	26	-4						
ROME	85.14	326.2	12	29	-2				21	5	
CLERMONT-FD.	85.22	334.0	12	35	4				14	3	
ISOLA	85.28	330.8	12	33	1						
KARAPIRO	85.31	155.9	12	44	12						
MONACO	85.53	330.4	12	33	0						
PREBEUF	85.57	25.9	12	32K	-1	21	53	-66	12	44	28 57 SS
BLOOMINGTON	86.03	37.3	12	35	0	22	53	-10			
MESSINA	86.89	322.2							23	15	
PENNSYLVANIA	88.23	30.8	12	45	-1						
HALIFAX	89.23	19.7	12	51	0						
PALISADES	89.47	28.1	12	50A	-2	23	33	-3	23	15	SKS
WASHINGTON	90.18	31.2	12	54	-1						
TORTOSA	90.50	333.6				23	51	6			
ROXBURGH	90.79	162.9	13	12	14	23	39	-8			
TOLEDO	92.77	336.3	13	7A	0	24	2	-3	16	50	PP
GRANADA	95.12	335.0				24	51	64			
MALAGA	95.79	335.4	13	19A	-2				17	13	PP
LWIRO	110.20	286.5							18	58	PP
BROKEN HILL	118.77	277.0	18	44	2						
SCOTT BASE	121.32	174.6	18	46	-1						
SOUTH POLE	132.79	180.0	19	8	-1						
BYRD STATION	133.00	166.3	19	9	0				22	33	
ANTOFAGASTA	145.35	67.6	19	32	1						
ARGENTINE I.	152.47	153.9	19	49	?						

JULY 18 5.H 53.M 47.S EPICENTRE -9.46 120.06 DEPTH= 56.KM

A=-0.49416 B= 0.85389 C=-0.16332 D= 0.8655 E= 0.5009
G= 0.0818 H=-0.1414 K=-0.9866 HT= 6.6

DEPTH OF FOCUS= 0.004R

SE= 1.88

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MUNDARING	22.68	188.5	4 56	-1	8 54	-3		
NHATRANG	24.09	333.2	5 12	1				
PORT MORESBY	26.72	92.1	5 37	1				
CHARTERS TS.	27.41	115.6	5 42	0				
ADELAIDE	30.59	148.9	6 10	0				11 56
BRISBANE	35.63	124.4	6 57	3				9 32
MELBOURNE	36.07	145.5	6 58	0				
CANBERRA	36.87	138.7	7 5A	1			7 22	8 32 PP
RIVERVIEW	37.46	135.0	7 10K	1				9 14
KUNMING	38.29	334.2	7 19K	3	13 7	1		
ZO-SE	40.34	1.5	7 33	0	13 33	-4		
MOORLANDS	40.56	148.7	7 36	1				
NANKING	41.30	358.4	7 41	0				
CHENGTU	42.77	339.5	7 53	0	14 8	-5		
SHILLONG	44.33	322.4	8 6K	0				
SIAN	44.74	346.9	8 8A	-1				
LANCHOW	47.78	342.2	8 34	1	15 25	0		
LHASA	47.88	325.3	8 35	1	15 24	-2		
CHATRA	48.17	319.4	8 40K	4				
MATUSIRO	48.84	19.5	8 37	-4				
PEKING	49.37	356.1	8 44	-2				
NEW DELHI	56.06	313.9	9 31K	-4				
TARATA	56.64	130.9	9 40	1				
GEBBIES PASS	56.83	136.5	9 42	1				
WILKES	57.17	184.6	9 40K	-3				
KARAPIRO	57.18	129.2	9 44	1				10 4
CHATEAU	57.51	130.6	9 46	0				
TUAI	58.62	129.8	9 53	0				10 21
DUMONT	58.73	170.8	9 52	-2				
MIRNY	59.91	192.1	10 0	-2				
QUETTA	64.46	309.9	10 30	-3				
ALMATA-2	65.28	327.0	10 40	2				
TASHKENT	68.75	321.2	11 1	1				
MAWSON	69.16	200.2	11 1K	-1			11 19	
PETROPAVLOVK	70.38	23.6	11 9	-1				
TANANARIVE	70.53	253.3	11 13K	2				11 35 PCP
YAKUTSK	71.66	4.8	11 14A	-3	20 26	-5		
SCOTT BASE	72.36	170.7	11 21	0				
SHIRAZ	75.66	303.9	11 39A	-2	21 16	0		12 24
SOUTH POLE	80.60	180.0	12 7	-1				
SVERDLOVSK	81.99	331.4	12 15	0				
KIROVOBAD	84.01	312.7	12 25	0				
TIFLIS	85.43	313.4	12 37	5				
BYRD STATION	85.77	171.3	12 35	1				15 4
BULAWAYO	88.14	250.0	12 47A	1				
BROKEN HILL	89.20	255.6	12 52	1				
PASADENA	121.47	55.8	18 53	6				
EUREKA	122.01	49.2	18 50	2				
ALBUQUERQUE	130.60	51.7	19 9	4				
WICHITA MTS.	136.66	48.6	19 11	-5				22 44 SKP
TULSA	138.12	45.4						22 47
ROLLA	139.65	40.3	19 22	1				
BLOOMINGTON	142.05	34.4	19 27	1				
BREBEUF	142.21	15.7	19 22	-4				
HALIFAX	144.83	4.5	19 33K	3				
PENNSYLVANIA	144.98	24.0	19 31	0				
MORGANTOWN	145.05	27.5	19 32	1				
WESTON	145.72	15.0	19 35	3				
PALISADES	146.23	19.2	19 36	3				19 53
CHAPEL HILL	148.44	30.5	19 44	8				
AREQUIPA	151.82	156.0	19 52	10				

JULY 18 9.H 23.M 37.S EPICENTRE -7.36 119.87 DEPTH= 576.KM

A=-0.49399 B= 0.86010 C=-0.12728 D= 0.8672 E= 0.4980
G= 0.0634 H=-0.1104 K=-0.9919 HT= 6.8

DEPTH OF FOCUS= 0.086R

SE= 2.32

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
CHARTERS TS.	28.53	119.0						6 35
ADELAIDE	32.49	150.4	5 43K	-2	10 20	-2		7 13 PP
KUNMING	36.34	333.2	6 18K	1				
BRISBANE	37.00	126.6	6 25K	2				8 7
ZO-SE	38.26	1.8	6 33K	0				
CANBERRA	38.58	140.3	6 35A	0			8 12	11 32 PCS
RIVERVIEW	39.09	136.7	6 40A	0				
NANKING	39.21	358.5	6 41	0				
CHENGTU	40.75	338.9	6 53	0				
SHILLONG	42.58	321.2	7 7A	0				
SIAN	42.66	346.6	7 8K	0				
LANCHOW	45.74	341.8	7 32K	0	13 37	3		
LHASA	46.06	324.3	7 35K	1	13 41	2		
MATUSIRO	46.94	20.3	7 39K	-2				
PEKING	47.28	356.1	7 43K	-1				
PAOTOW	48.56	350.0	7 51	-2				
VLADIVOSTOK	51.42	11.3	8 13	-1				
NEW DELHI	54.49	312.9	8 34K	-2				
TUAI	60.11	130.7	9 13	-1				
DUMONT	60.82	171.0	9 8	-11				
MIRNY	61.92	191.8	9 24	-2				
KHOROG	63.42	318.4	9 37	2				
PETROPAVLOVK	68.55	24.0	10 8	1				
YAKUTSK	69.59	4.9	10 13	0	19 23	47		
MAWSON	71.06	199.9	10 21A	-1			12 16	
SCOTT BASE	74.45	170.8	10 40	-1				
SVERDLOVSK	80.06	331.3	11 10	-1				
KIROVOBAD	82.46	312.6	11 25	2				
SOUTH POLE	82.69	180.0	11 25	0				
BYRD STATION	87.87	171.4	11 51	1				13 43
BULAWAYO	88.68	250.0						11 55 PCP
CHINA LAKE	120.51	52.7	17 50	4				
EUREKA	120.77	48.2	17 50	3				
WICHITA MTS.	135.39	46.9	18 18	3				20 59 SKP
MORGANTOWN	143.27	26.0	18 30	0				
WESTON	143.75	14.1	18 32	2				

JULY 19 22.H 5.M 46.S EPICENTRE 39.69 141.09 DEPTH= 109.KM

A=-0.60041 B= 0.48467 C= 0.63608 D= 0.6281 E= 0.7781
G=-0.4949 H= 0.3995 K=-0.7716 HT= -1.6

DEPTH OF FOCUS= 0.012R

SE= 2.55

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MORIOKA	0.06	80.9	0 13A	-3	0 22	-5		
MIZUSAWA	0.56	176.7	0 14	-5	0 26	-7		
MIYAKO	0.68	93.1	0 17K	-3	0 30	-4		
AKITA	0.76	272.6	0 18A	-2	0 33	-2		
HATINOHE	0.90	21.8	0 21K	0	0 37	0		
AOMORI	1.15	348.3	0 26A	3				
ISINOMAKI	1.27	171.8	0 22K	-3	0 38	-6		
SENDAI	1.43	186.0	0 24K	-3	0 42	-5		
YAMAGATA	1.55	202.0	0 26K	-2	0 44	-5		
HUKUSIMA	2.00	194.2	0 31	-3	0 54	-5		
HAKODATE	2.13	353.4	0 37K	2	1 5	3		
NIIGATA	2.38	222.7	0 39	0	1 6	-2		
MORI	2.44	350.9	0 43	3	1 14	5		
MURORAN	2.63	358.2	0 45	3	1 16	2		
SHIRAKAWA	2.66	195.2	0 40	-2	1 9	-5		
ONAHAMA	2.74	183.2	0 49	5	1 10	-6		
URAKAWA	2.77	27.0	0 44	0				
AIKAWA	2.77	233.9	0 43	-1	1 15	-2		
HIROO	3.09	32.4	0 42	-6				

UTUNOMIYA	3.28	197.4	0	52	1	1	24	-5			
MITO	3.34	188.6	0	50	-2	1	25	-6			
SAPPORO	3.38	3.3	0	55	3	1	33	1			
TAKADA	3.41	221.7	0	56	3	1	31	-2			
KAKIOKA	3.53	192.0	0	51	-3	1	23	-12			
TUKUBASAN	3.55	193.0	0	50K	-5					1	22
MAEBASI	3.65	206.5	0	54K	-2	1	39	1			
NAGANO	3.78	218.0	0	55	-3	1	42	1			
KUMAGAYA	3.78	201.5	0	59	1	1	56	14			
MATUSIRO	3.88	216.7	0	57K	-2	1	40	-4			
OIWAKE	3.91	211.7	0	59	0	1	46	1			
TITIBU	4.03	203.9	1	3	2						
KUSIRO	4.13	36.1	1	4	2	1	47	-3			
TOKYO C.M.O.	4.14	195.3								1	20
MATUMOTO	4.23	216.6	1	5	1						
YOKOHAMA	4.40	195.5				1	50	-6			
KOHU	4.49	207.3	1	10	3	2	17	18			
HUNATU	4.57	204.5	1	12	4	2	12	11			
MISIMA	4.87	201.1	1	22	10						
AJIRO	4.89	199.5	1	9	-4	2	2	-7			
IIDA	4.90	212.9	1	18	5						
NEMURO	4.96	41.4	1	32	18	2	6	-4			
OSIMA	5.10	196.0				2	2	-12			
SHIZUOKA	5.18	205.3								2	33
GIHU	5.49	220.0	1	22	1						
NAGOYA	5.58	217.3	1	23	1	2	25	0			
HAMAMATU	5.64	209.5								1	41
HIKONE	5.85	222.6	1	27	1						
KAMEYAMA	6.07	218.7	1	29	0						
KYOTO	6.32	224.1	1	30	-2	2	45	1			
ABUYAMA	6.52	224.2	1	34K	-1						
HATIDYOZIMA	6.66	189.4	1	44	7						
CHANGCHUN	12.48	294.5	2	55	0						
ZO-SE	18.33	248.3	4	8	0	7	52	27			
PEKING	19.12	279.0	4	13	-4						
NANKING	19.58	254.1	4	20	-2						
LANCHOW	29.50	274.9	5	54	-2						
SHILLONG	43.26	266.3	7	51K	-1						
COLLEGE	47.00	33.5	8	23	1					9	6
LAHORE	53.76	283.4	9	14	1						
MOULD BAY	54.07	17.0	9	16	0						
WARSAK DAM	54.68	287.5	9	20	0						
ALERT	57.50	3.6	9	41K	1						
CHARTERS TS.	59.66	174.4	9	54	-1						
QUETTA	59.95	285.8	9	57	0						
APATITY	60.17	335.0	9	57A	-2						
SODANKYLA	62.43	336.6	10	12K	-2						
KIRUNA	63.95	338.7	10	23	-1						
KAJAANI	64.10	333.4	10	24K	-1						
UMEÅ	66.76	335.5	10	41	-1						
NURMIJARVI	67.49	331.3	10	45K	-1						
HELSINKI	67.60	331.0	10	46	-1						
SKALSTUGAN	69.36	338.1	10	57	-1						
UPPSALA	70.47	333.5	11	4K	-1						
SHIRAZ	70.74	292.8	11	5K	-1	19	44	-26		12	25
KARLSKRONA	73.95	331.7	11	23	-2						
EUREKA	74.39	51.6	11	29	1						
WOODY	74.94	56.1	11	31	0					12	7
COPENHAGEN	75.44	332.8	11	34	0						
DUGWAY	75.82	49.4	11	37K	1						
COLLMBERG	78.68	329.7	11	51	-1					12	17
PRUHONICE	79.10	328.1	11	54K	0						
JENA	79.52	330.2	11	56	0						
KASPERSKE H.	80.15	328.1	12	0K	0					12	20
STUTTGART	82.15	330.1	12	11	1						
KARAPIRO	83.47	153.2	12	17	0						
FOLINIERE	85.58	335.6	12	28	0						
WICHITA MTS.	87.72	45.4	13	5	27						

JULY 22 13.H 36.M 59.S EPICENTRE -8.56 158.77 DEPTH= 168.KM

A=-0.92187 B= 0.35820 C=-0.14784 D= 0.3622 E= 0.9321
G= 0.1378 H=-0.0535 K=-0.9890 HT= 6.7

DEPTH OF FOCUS= 0.021R

SE= 1.25

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
RABAUL	7.86	303.0	1 53	0	3 21	1		
PORT MORESBY	11.51	264.9	2 41K	1	4 57	11		
PORT VILA	13.02	135.4	2 58A	-2				
KOUMAC	13.07	156.5	3 2K	2	5 21	-1		
NOUMEA	15.53	152.5	3 29A	-2	6 39	21		
CHARTERS TS.	16.67	225.2	3 47A	2	6 56	12		
BRISBANE	19.57	196.1	4 18A	1	7 55	11		
GUAM	25.93	327.4	5 17	-2			5 49	
RIVERVIEW	26.11	194.5	5 20A	0	9 44	7	5 36	6 6 PP
CANBERRA	28.10	197.1	5 38A	0				6 37 PP
ONERAHI	30.61	154.6	6 2	2				
MELBOURNE	31.70	201.1	6 10	0				
ADELAIDE	32.07	212.0	6 13A	0				6 49
KARAPIRO	32.93	155.2	6 20A	-1			6 49	9 8 PCP
TARATA	33.56	157.8	6 26	0			6 58	
CHATEAU	34.02	156.4	6 29A	-1			7 2	
TUAI	34.35	154.1	6 33	0				
WELLINGTON	35.54	159.1	6 41	-2				
GEBBIES PASS	37.05	163.2	6 54	-1				
ROXBURGH	37.90	167.9	7 5	2				
MATUSIRO	48.84	337.9	8 28K	-2	15 20	1		
HONOLULU	51.71	54.3			16 12	13		17 3
HAWAII V.OB.	53.14	58.0	9 2	-1				
ZO-SE	53.39	319.3	9 4K	0	16 25	3		
NANKING	55.57	318.6			16 57	6		
DUMONT	59.43	188.5	9 46	-1				
CHANGCHUN	60.32	332.7	9 52	-1	17 57	4		20 25 *SP
PEKING	62.33	324.1	10 6	-1	18 22	4		10 37 *SP
SIAN	63.55	315.0	10 14K	-1				
CHENGTU	65.37	309.3	10 26	-1	18 58	3		11 1 *SP
WILKES	66.35	199.2	10 31A	-2				11 16
PAOTOW	66.36	321.3	10 32	-1	19 12	5		11 4 *SP
LANCHOW	68.05	314.3	10 44	1	19 33	5		11 18 *SP
SCOTT BASE	69.39	178.2	10 52	0				
MIRNY	72.67	202.5	11 11	0				
SHILLONG	73.32	299.9	11 16K	1				
LHASA	75.31	303.6	11 28	2	20 56	6		12 3 *SP
BYRD STATION	80.19	169.9	11 53	0			12 28	
SOUTH POLE	81.50	180.0	12 0	0				
COLLEGE	83.22	20.2	12 7	-2				
MAWSON	84.39	202.5	12 15A	0				
CALISTOGA	86.53	50.3	12 27A	2				
NEW DELHI	86.72	299.4	13 2A	36				
LICK	86.96	51.7	12 29A	2				13 3
PRIEST	87.46	53.1	12 32A	2				
MINERAL	87.67	48.8	12 34A	3				
RENO	88.84	49.9	12 38	2				
PASADENA	89.06	55.4	12 38	1	23 12	3		
PENTICTON	91.00	40.4	12 46	0				
EUREKA	91.74	50.5	12 51	1				
BOULDER CITY	92.07	54.1	12 52	1				
DUGWAY	94.26	50.2	13 1	0				
FLAMING GRGE	96.93	49.7	13 14	1				
WICHITA MTS.	105.20	56.4	13 29	777				25 41 PS
TULSA	107.47	55.1						16 32
FAYETTEVILLE	108.75	54.9						16 39 PP
BULAWAYO	123.28	239.2	18 39	2				
COLLMBERG	128.93	333.0						19 30
JENA	129.83	333.5						22 8
LJUBLJANA	131.69	327.0	18 54	1				19 35
STUTTGART	132.42	332.9						22 11
GARCHY	136.22	336.1						22 24
BANGUI	140.20	266.6	19 11	2				
TOLEDO	145.24	336.5	19 19	1			19 53	
GRANADA	147.33	333.4						20 4

JULY 24 16.H 23.M 23.S EPICENTRE 10.73 121.78 DEPTH= 94.KM

A=-0.51757 B= 0.83541 C= 0.18498 D= 0.8501 E= 0.5267
G=-0.0974 H= 0.1572 K=-0.9827 HT= 6.4

DEPTH OF FOCUS= 0.010R

SE= 1.69

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MANILA	3.97	350.2	0 55	-5	1 37	-9		
BAGUIO CITY	5.77	348.5	1 22	-3	2 41	11		
HONG KONG	13.62	328.6			5 45	5		
ZO-SE	20.28	358.5	4 30K	0	8 17	10		
NANKING	21.41	353.0	4 42	U				
LEMBANG	22.43	219.5	4 56	4	9 7	20		
TANGERANG	22.57	222.6	4 51	-2				
KUNMING	23.04	310.9	4 57K	-1	9 9	12		
CHENGTU	25.80	322.8	5 22	-2	9 52	8		
SIAN	26.20	335.3	5 24	-4				
PEKING	29.60	351.3	5 57	-1				
MATUSIRO	29.68	27.4	5 58	-1				9 2 PCP
LANCHOW	30.00	330.0	6 2	U	11 6	14		
CHANGCHUN	33.12	4.7	6 29	U				
VLADIVOSTOK	33.45	13.5	6 34	2	12 0	15		
LHASA	34.27	307.8	6 38	-1	12 7	9		
CHATRA	36.31	301.0	6 55K	-1				
CHARTERS TS.	38.97	141.7	7 17	-2				9 25
Y.-SAKHLINSK	40.28	22.2	7 30	1				
ESEN BULAK	41.65	333.3	7 42	1				
ADELAIDE	48.20	161.3	8 29	-4				
BRISBANE	48.37	142.2	8 34	0	16 3	37		
LAHORE	48.42	302.8	8 32	-3				
ALMATA	50.55	318.2	8 48	-3				
WARSAK DAM	51.30	305.1	8 56K	-1				
PETROPAVLOVK	51.51	27.6	9 0	2				
YAKUTSK	51.53	4.8	8 58K	U				
FRUNSE	51.91	316.7	9 0	-1				
SEMIPALATNSK	52.20	327.5	9 1	-2				
KHOROG	52.27	309.3	9 3	-1				
CANBERRA	52.54	151.9	9 9	3			9 18	
QUETTA	54.36	299.4	9 16	-3				
TASHKENT	55.09	313.2	9 24K	-1	17 8	10		
TIKSI	61.01	2.6	10 4K	-2				
VANNOVSKAYA	62.76	307.2	10 17	-1				
SVERDLOVSK	65.47	328.0	10 33	-2				
SHIRAZ	66.80	297.7	10 43K	-1				12 29
TEHERAN	67.92	304.2	10 50	-1				12 56 PP
KARAPIRO	69.75	137.2	11 2	0				
KIROVOBAD	72.07	309.3	11 15	-1				
TIFLIS	73.24	310.4	11 23	U				
MOSCOW	77.92	324.9	11 50A	1				
TANANARIVE	78.86	248.2	11 55	1				
APATITY	79.53	337.0	11 58	0				
COLLEGE	80.54	25.7	12 4	1				
KSARA	80.74	302.7	12 6	2				19 14
SODANKYLA	82.16	337.1	12 11	-1				
KAJAANI	82.21	333.7	12 11	-1				
HELSINKI	84.15	330.1	12 22A	0				
NURMIJARVI	84.23	330.4	12 22A	U				
KIRUNA	84.39	338.0	12 23	U	22 43	3		
UMEA	85.49	334.2	12 28	-1				
MOULD BAY	86.22	12.1	12 33	1				
UPPSALA	87.80	330.7	12 38	-2				
UZHGOROD	88.22	319.1	12 41	-1				
SOFIA	88.94	313.2						15 31
SKALNATE PL.	89.39	320.0						16 23 PP
BRATISLAVA	91.68	319.6						16 13
PRUHONICE	92.67	321.9	13 3K	U				
COLLMBERG	93.13	323.5	13 5K	U				17 6
KASPERSKE H.	93.56	321.3	13 7	U				
LJUBLJANA	94.03	318.2	13 9	U				16 33 PP
JENA	94.10	323.5	13 9	U				
TRIESTE	94.68	318.0						16 35 PP
STUTTGART	96.32	322.0	13 20	1				17 5 PP
RAVENSBURG	96.51	321.0						17 1 PP
DOURBES	98.49	324.6						17 29 PP
ROSELEND	99.25	320.0						17 6
KEW	100.51	327.4						17 53

GARCHY	100.72	322.6										17	30	
FOLINIERE	102.02	325.1										17	48	PP
RANGUI	102.07	276.8										15	17	
TOLEDO	108.94	318.7	17	53	777									
MALAGA	110.86	316.1	17	53	-29									
WICHITA MTS.	120.79	38.4	18	44	3							20	12	PP

JULY 24 21.H 8.M 22.5 EPICENTRE 15.42 -92.49 DEPTH= 134.KM

A=-0.04184 B=-0.96353 C= 0.26430 D=-0.9991 E= 0.0434
G=-0.0115 H=-0.2640 K=-0.9644 HT= 5.7

DEPTH OF FOCUS= 0.016R

SE= 2.34

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
COMITAN	0.89	22.6	0	25	2								
SAN SALVADOR	3.62	118.2	0	54	-2	1	42	3					
SANTIAGO MA.	4.34	115.8	1	24	18								
OAXACA	4.41	291.7	1	2	-5								
VERA CRUZ	5.12	317.7	0	58	-18	2	6	-9			2	33	
MERIDA	6.13	25.9	1	28	-2	2	43	4					
PUEBLA	6.53	304.1	1	54	19	3	19	30					
TACUBAYA	7.53	302.6	1	32	-17	2	46	-27			3	20	
GUADALAJARA	11.55	298.5	2	44	3						5	50	
BALBOA HTS.	14.17	115.5	3	13	-3								
BLACK RIVER	14.23	77.6	3	20	3								
HOPE	15.29	78.2	3	37	7						4	3	PP
CHINCHINA	19.56	120.3	4	19	-1	8	6	18			5	5	PPP
LUBBOCK	19.96	336.6	4	20	-4								
WICHITA MTS.	19.98	345.2	4	23A	-1	8	3	7			4	44	
TULSA	20.61	352.4	4	29	-1	8	12	4			15	48	SCS
FAYETTEVILLE	20.64	356.1	4	30A	-1	8	6	-3					
BOGOTA	21.05	118.8	4	35A	0	8	10	-6			5	16	PPP
COLUMBIA	21.19	27.2	4	37	1						10	55	
ROLLA	22.39	1.2	4	38A	-10	8	53	13					
ALBUQUERQUE	23.14	329.7	4	57	2	9	10	17					
ST. LOUIS 1	23.21	4.5	4	56	0								
FLORISSANT	23.36	4.2	4	57	0								
TUCSON TELE.	23.63	318.6	5	0	0						15	44	SCS
TUCSON	23.65	318.3	5	0	0	9	16	14	5	27			
CHAPEL HILL	23.68	28.0	5	1	1								
MANHATTEN	23.96	352.1	5	2A	-1	9	11	4					
BLOOMINGTON	24.25	11.4	5	5	-1	9	20	8					
TERRE HAUTE	24.26	9.7	4	58	-8	8	38	-34					
CARACAS	25.37	98.0	5	21A	5	9	28	-3					
SAN JUAN	25.39	79.6	5	14	-3	9	35	4					
WASHINGTON	27.03	27.2	5	31	-1						9	9	
GEORGETOWN	27.03	27.2	5	32	0	10	12	14					
GLEN CANYON	27.36	325.2	5	36	1						6	28	PP
CLEVELAND	27.64	17.9	6	1	24								
LARAMIE	28.18	338.8	5	42	0						6	5	
PENNSYLVANIA	28.30	23.8	5	44A	1								
BOULDER CITY	28.58	319.9	5	47	1						15	45	
ST. KITTS	28.60	82.0	5	44	-2						6	9	
PHILADELPHIA	28.74	28.4	5	46	-1	11	1	36					
PRICE	28.94	329.9	5	50A	1								
LONDON ONT.	29.18	17.1	5	51	0				6	16			
FLAMING GRGE	29.35	333.3	5	53	0								
PASADENA	29.72	313.5	5	57	1	10	50	9	6	20	8	57	PCP
RAPID CITY	29.98	344.4	5	58	0								
FORDHAM	30.05	28.9	5	55	-4	10	47	1					
GRENADA	30.05	92.5	6	1	2						6	23	
PALISADES	30.16	28.7	6	0	0	10	50	2					
FORT FRANCE	30.25	87.1									7	4	
ST. VINCENT	30.32	90.2	6	0	-1						7	50	PP
SALT LAKE C.	30.35	330.1	6	2	1						6	24	
DUGWAY	30.39	328.3	6	3A	1	10	56	5	6	35			
TRINIDAD	30.64	95.1	6	2	-2						7	8	PP
EUREKA	31.57	323.9	6	14	2								
HUANCAYO	32.15	147.2	6	18	1	11	3	-16					
WESTON	32.45	29.9	6	20	0	11	21	-2					
PRIEST	32.50	314.7	6	22	2								
LICK	33.81	315.7	6	33K	2								
RENO	33.89	320.5	6	34A	2								

ARREFUF	33.93	24.0	6	33K	1	11	53	7	6	57	7	56	PP
BOZEMAN	33.95	336.4	6	33	0								
BERKELEY	34.51	316.1	6	39K	2	12	6	11	7	2	9	11	PCP
BUTTE	34.84	335.2	6	44	4								
SHAWINIGAN	35.13	23.9	6	43	0				7	6			
CALISTOGA	35.13	317.0	6	44A	1								
HUNGRY HORSE	37.32	336.2	7	0	-1	12	59	21					
HALIFAX	38.00	34.1	7	7A	0								
BANFF	40.18	337.5	7	24	-1								
PENTICTON	40.40	332.6	7	27A	0								
SEATTLE	40.49	328.8	7	24A	-3						24	50	
VICTORIA	41.63	329.0	7	38A	1								
SCHEFFERVLLE	44.07	21.2	7	56	0								
ANTOFAGASTA	44.47	150.6	7	59	-1								
SITKA	52.57	332.1	9	3	1								
RESOLUTE	59.27	359.3	9	47	-3								
COLLEGE	61.76	336.5	10	6	-1								
KIPAPA	62.09	286.3	10	9	0								
HONOLULU	62.17	286.2	10	13	3	18	33	11	10	38	19	20	*SS
THULE	62.31	6.3	10	10	0						11	53	
MOULD BAY	62.44	353.0	10	10	-1								
PONTA DELGDA	62.47	55.3				18	40	14			25	54	SSS
ALERT	68.17	4.1	10	46	-2	19	40	4	11	12			
SCORESBY SD.	69.09	19.8	10	53	-1				11	19	20	41	SCS
W.BOUR	72.60	79.5				21	9	42					
ABERDEEN	77.40	33.9	11	51A	9	21	51	31			22	31	PS
DURHAM	78.08	36.3	11	46	0	21	31	4	12	13			
TOLEDO	79.10	51.6	11	51	0	21	42	4	12	25	14	46	PP
KEW	79.43	39.5	11	50	-3				12	21			
MALAGA	79.44	54.8	11	52A	-1	21	48	6					
FOLINIERE	79.87	42.2	11	54	-1								
GRANADA	79.98	54.2	12	16K	20	21	52	5			22	58	PS
PARIS	81.78	41.7	12	4	-1						12	53	
TORTOSA	82.30	49.9									14	20	
GARCHY	82.53	43.1	13	8	59				13	56	15	46	PP
BENI ABBES	82.68	60.9	12	9	-1	22	18	3	12	36	15	5	PP
SKALSTUGAN	82.74	25.9	12	10A	0				12	39	15	46	PP
DOURBES	82.79	40.1	12	10	-1	22	17	1					
TROMSOE	82.86	19.2	12	10	-1								
KHEYS	82.94	4.7	12	12A	1	22	25	8	12	40			
CLERMONT-FD.	82.95	44.6	12	10	-1								
ARGENTINE I.	83.22	168.4									12	38	
KIRUNA	84.15	20.6	12	18	1	22	29	0	12	45	15	56	PP
BESANCON	84.45	42.6	12	18	-1								
GOTEBORG	84.63	31.5	12	19	-1								
STRASBOURG	85.21	41.0	12	22	-1	23	2	22			24	0	SP
KEVO	85.27	17.7	12	22	-1								
ROSELEND	85.33	44.0	12	21	-2								
COPENHAGEN	85.58	33.3	12	17	-8	22	46	3					
UMEA	85.89	24.2	12	25	-1	22	47	1			15	45	PP
ISOLA	86.07	45.3	12	26	-1								
STUTTGART	86.10	40.5	12	26	-1	22	43	-5			16	15	PP
SODANKYLA	86.44	19.8	12	26	-3								
MONACO	86.47	45.7	12	28	-1								
UPPSALA	86.52	28.4	12	27	-2	22	36	-16	12	56	15	50	PP
JENA	86.77	37.9	12	30	0	22	44	-11	13	14	16	14	PP
CHUR	86.88	42.2									13	22	
KARLSKRONA	87.04	32.2	12	31	-1								
PAVIA	87.19	43.9									16	9	PP
COLLMBERG	87.48	37.3	12	34	0								
APATITY	88.47	18.1				22	54	-17			16	31	PP
KAJAANI	88.61	22.3	12	38	-1						13	24	
KASPERSKE H.	88.63	39.2	12	39	0				13	10	16	34	PP
PETROPAVLOVK	88.73	325.1	12	42	2	23	21	8	13	8	24	40	PS
TIKSI	88.79	347.9	12	40	0	22	58	-16	13	15			
PRUHONICE	88.89	38.1				23	8	-6	13	6	16	45	PP
FLORENCE X.	89.06	44.7	12	28	-13	23	10	-6			16	23	PP
NURMIJARVI	89.32	26.1	12	43	1	23	23	5	13	13	24	9	*SS
MAGADAN	89.62	332.9	12	45	1	23	31	10			16	23	PP
TRIESTE	90.04	42.3				23	32	7	13	15	16	13	PP
LJUBLJANA	90.39	41.8							13	16	16	9	PP
ROME	90.58	46.2	12	26	-22	23	8	-22			16	22	PP
VIENNA-H.	90.67	39.2									16	38	PP
RACIBORZ	90.99	37.1							13	33	16	27	PP
BRATISLAVA	91.15	39.1	12	51	0						25	18	
ZAGREB	91.42	41.6				23	45	8					
KRAKOW	92.01	36.6				23	23	-19	17	1	25	16	PS
PULKOVO	92.09	25.2	12	54	-1	23	18	-25	13	20	16	36	PP

AMDERMA	93.10	8.7	12	59	-1	24	0	8				
MESSINA	94.16	48.7								13	27	
LWOW	94.45	35.5	13	6	0	23	26	-37		16	59	PP
BELGRADE	94.69	41.1								16	56	
YAKUTSK	95.96	341.4	13	13A	0	23	40	5				
MOSCOW	97.68	25.9	13	20	-1	23	50	6		26	14	PS
ATHENS	100.06	46.1								17	26	
WELLINGTON	102.03	230.3								17	44	PP
SIMFEROPOL	102.84	35.8				24	13	4				
SVERDLOVSK	104.60	14.9				24	24	6				
SOUTH POLE	105.33	180.0	18	9	777							
BANGUI	109.04	79.8								18	15	
MATUSIRO	109.59	318.6	18	18	777	24	51	12				
TIFLIS	110.81	32.9				24	52	8		18	54	PP
IRKUTSK	111.03	349.0								18	59	PP
GORIS	113.21	33.7								19	38	
BRISBANE	118.67	247.0								20	8	
TEHERAN	118.69	33.1								20	2	
ASHKABAD	120.26	26.5								19	55	PP
LWIRO	120.72	83.4	18	40A	4							
FRUNSE	120.84	11.0	18	40	3	25	32	11				
KIMBERLEY	120.96	114.5	18	39	2							
TASHKENT	121.07	16.0	18	40	3	25	32	10		20	9	PP
CANBERRA	121.91	237.8	18	42	3				19 9			
BROKEN HILL	123.10	97.4	18	43	2							
SHIRAZ	123.90	37.0	18	45A	2					20	55	*PPP
BULAWAYO	123.95	104.1	18	44	1							
CHARTERS TS.	124.09	256.0	18	45	2					20	53	
KHOROG	125.27	15.6	18	50	5							
MAWSON	125.46	168.7	18	46A	0				19 14			
WILKES	126.88	191.4	18	49	1				19 18			
WARSAK DAM	128.55	17.0	18	54K	3							
MIRNY	128.79	182.8	18	54	2							
ADELAIDE	130.32	237.1	18	51	-4					19	25	*SPKP
QUETTA	130.52	23.6	18	58	3							
LAHORE	131.61	15.1	19	0	3							
NEW DELHI	135.13	12.9	19	41A	37					22	27	PP
TANANARIVE	141.71	101.1	19	17	1					22	51	PP
MUNDARING	149.12	232.7	19	31	3							

JULY 25 4.H 37.M 42.5 EPICENTRE 18.90 -81.41 DEPTH= 0.KM

A= 0.14135 B=-0.93612 C= 0.32203 D=-0.9888 E=-0.1493
G= 0.0481 H=-0.3184 K=-0.9467 HT= 4.9

SE= 3.98

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
BLACK RIVER	3.48	104.4	0	52	-3							
HOPE	4.52	100.7	1	7	-5							
MERIDA	7.98	286.1	2	6	5	4	8	35				
SANTIAGO MA.	8.65	232.6	2	42	32							
SAN SALVADOR	9.10	236.4	2	21	5							
BALBOA HTS.	10.05	169.4	2	29	0	4	11	-13				
COMITAN	10.56	257.2	2	58	22						5	43
VERA CRUZ	13.92	273.6	3	38	17						7	48
SAN JUAN	14.51	89.6	3	23	-6	5	58	-14				
OAXACA	14.73	265.1	3	25	-7						7	37
CHINCHINA	14.96	157.1	3	35	0	6	29	7	3	43		
COLUMBIA	15.04	1.2	3	32	-4						6	13
BOGOTA	15.90	152.3	3	46A	-1	6	37	-8				
CARACAS	16.30	118.8	3	48A	-4	7	48	54				
HOUSTON	16.67	312.9	3	58	1							
TACUBAYA	16.81	274.6	4	8	9						10	50
ST. KITTS	17.83	92.0	4	6	-6							
ST. CLAUDE	19.02	95.6	4	26	0	8	2	6				
FORT FRANCE	19.83	99.0	4	33	-3	8	12	-2				
GRENADA	20.15	106.9	4	36	-3							
ST. VINCENT	20.17	103.4	4	36	-3						5	43
WASHINGTON	20.28	9.8	4	39	-1	8	12	-11				
GEORGETOWN	20.28	9.8	4	38	-2	8	18	-5				
FAYETTEVILLE	20.50	329.2	4	39	-4	8	39	11				
GUADALAJARA	20.69	278.6	4	53	8						9	7
BLOOMINGTON	20.69	348.8	4	46	1	8	28	-4				
MORGANTOWN	20.69	3.2	4	46	1	8	49	17				

TRINIDAD	21.00	110.2	4 42A	-6	8 46	8		
ROLLA	21.03	336.3	4 45A	-3	8 35	-3		
TERRE HAUTE	21.03	347.0						5 38
ST. LOUIS 1	21.11	340.5	4 46	-3				
TULSA	21.17	326.1	4 45	-5	8 44	3		
FLORISSANT	21.30	340.4	4 47	-4				
PHILADELPHIA	21.65	13.1	5 6	12	8 59	9		
BARBADOS	21.73	102.1	5 3	8				
WICHITA MTS.	21.93	319.4	4 54	-3	9 2	7		7 7
PENNSYLVANIA	22.03	7.2	4 55K	-3				
CLEVELAND	22.50	359.8	5 5A	2	9 17	11		
FORDHAM	22.81	14.9	6 5	59	10 7	56		
PALISADES	22.95	14.7	5 9	2	9 19	5		
LUBBOCK	23.38	312.7	5 6	-6				
LONDON ONT.	24.06	0.4	5 21K	3				
MANHATTEN	24.12	330.2	5 17	-2	9 38	4		
CHIHUAHUA	24.52	297.9						5 33
WESTON	24.92	17.9	5 38	11	9 55	7		
BREBEUF	27.30	12.0	5 50K	1	10 34	7	6 12	6 43 PP
ALBUQUERQUE	27.35	310.8	5 49	0	10 22	-6		
SHAWINIGAN	28.48	12.6	6 0	1				
TUCSON	29.57	302.5	6 8	-1				
HALIFAX	29.64	26.2	6 11K	1				
RAPID CITY	31.04	328.7	6 31	9	11 28	1		
HUANCAYO	31.34	168.5	6 25	0				
GLEN CANYON	31.97	310.5	6 32	2				
FLAMING GRGE	32.47	318.5	6 29	-6				
PRICE	32.68	315.4	6 35A	-2				
SALT LAKE C.	33.96	316.5	6 45	-3				
BOULDER CITY	33.97	306.9	6 46	-2				
DUGWAY	34.31	314.9	6 48A	-3	12 25	7		14 0
PASADENA	36.00	302.4	7 8	3	12 52	8		8 24 PP
BOZEMAN	36.24	324.1	7 4	-3	12 48	0		
AREQUIPA	36.47	163.8	7 8	-1				
BUTTE	37.30	323.5	7 21	5				
LA PAZ	37.53	158.8	7 13	-5				
SCHEFFERVLLE	37.56	13.9	7 16K	-2				
PRIEST	38.50	304.7	7 27K	1				
RENO	38.93	310.1	7 29	-1				
HUNGRY HORSE	39.48	325.6	7 32	-2	13 32	-5		
LICK	39.59	306.1	7 34K	-1				
BERKELEY	40.21	306.7	7 44A	4	13 54	6		8 5 PP
CALISTOGA	40.68	307.7	7 42K	-2				
BANFF	41.96	328.1	7 54	-1				
ANTOFAGASTA	43.68	165.3	7 42	-27				8 14
SEATTLE	43.85	320.3	8 4	-6				18 25
VICTORIA	44.91	320.9	8 25	6				
PONTA DELGDA	51.77	56.5	9 19	7	16 49	16		20 11 SS
SANTA LUCIA	53.06	168.7	9 23	1	16 49	-2		20 36 SS
RESOLUTE	56.27	355.7	9 40	-5				
THULE	57.94	3.6	9 58	1				
REYKJAVIK	59.99	25.9	10 12	1	18 41	18	10 29	
MOULD BAY	60.56	350.3	10 16	1				
SCORESBY SD.	62.29	19.1	10 26	-1	18 51	-1		
COLLEGE	63.06	334.0	10 27	-5	19 3	1		
ALERT	64.08	2.7	10 34	-4	19 12	-3		
LISBON	64.77	55.5	10 45A	2	19 28	5		11 34 PCP
SERRA PILAR	65.02	52.8	10 46K	1	19 24	-2	10 56	13 12 PP
COIMBRA	65.21	53.8	10 46K	0				
NORD	67.79	8.3	11 1	-1	19 48	-12		
ABERDEEN	68.55	35.1	11 11A	4	20 18	9		15 21 PPP
TOLEDO	68.59	53.8	11 8	1	20 15	6		13 36 PP
MALAGA	68.74	57.2	11 8K	0	20 12	1		13 36 PP
DURHAM	68.94	37.7	11 10K	1	20 18	4		
JERSEY	69.01	43.7	11 32	22	20 21	7		
HAWAII V.OB.	69.21	284.2	10 38	-33				
GRANADA	69.30	56.6	11 14A	2	20 26	8	11 20	13 32 PP
KEW	69.94	41.1	11 15	-1	20 36	11		13 50 PP
FOLINIERE	70.11	44.0	11 17	0				
ALMERIA	70.25	56.8	11 19K	2	20 32	3		13 52 PP
HONOLULU	71.36	286.7	11 26	2	20 54	12		
ALICANTE	71.56	54.9	11 30	5	20 48	4		25 20 SS
TORTOSA	71.89	52.2	11 35	8	20 49	1		
PARIS	72.06	43.7	11 31	3	20 51	1		25 24 SS
BERGEN	72.15	31.4	11 30	1				
GARCHY	72.67	45.2	11 30	-2				
CLERMONT-FD.	72.96	46.8	11 32	-2	21 4	4		
DOURBES	73.22	42.1	11 35	0	20 52	-11		

DE BILT	73.25	40.0	11	28	-7	21	4	0		25	48 SS
WITTEVEEN	74.03	39.1	11	42	2						
BESANCON	74.63	44.9	11	44	1					12	20
SKALSTUGAN	74.89	27.5	11	42	-3					12	4
ROSELEND	75.38	46.4	11	48	0						
STRASBOURG	75.54	43.3	11	48	-1	21	28	-1		14	46 PP
FELDBERG	75.63	41.5	11	50	1						
BASLE	75.64	44.4	11	58	9	21	29	-1			
HEIDELBERG	75.97	42.3	11	51	0						
TROMSOE	75.99	20.8	11	53	2						
ISOLA	76.00	47.8	11	58	7						
GOTEBORG	76.02	33.5	11	51	0						
MONACO	76.37	48.2	11	53	0						
TUBINGEN	76.39	43.1	12	0	7						
EBINGEN	76.41	43.5	11	54	1						
STUTTGART	76.47	42.9	11	53	-1	21	41	2		14	1
COPENHAGEN	76.75	35.5	11	56	1	21	45	3			
RAVENSBURG	76.92	43.8	11	57	1						
KIRUNA	77.04	22.4	11	54	-3	21	43	-2		16	40
CHUR	77.09	44.8	12	4	7	21	50	4			
PAVIA	77.24	46.5	12	6	8					14	46 PP
JENA	77.41	40.4	11	57	-2	21	51	2		15	7 PP
CHIAVARI	77.55	47.3	12	28	28					26	30
COLLMBERG	78.18	39.8	12	2	-1	21	57	-1			
UMEA	78.24	26.3	12	4	0	21	51	-7			
UPPSALA	78.30	30.6	12	3	-1	21	56	-3			
KARLSKRONA	78.33	34.5	12	4	0						
KHEYS	78.48	6.2	12	13A	8	22	3	2			
PRATO	78.91	47.4	12	25	18	22	4	-1			
PADOVA	79.03	45.8	12	18	10	22	8	1			
FLORENCE X.	79.04	47.5	12	20	12	22	22	15		15	33 PP
KASPERSKE H.	79.12	41.8	12	6	-2					14	44
SODANKYLA	79.43	22.0	12	6	-4						
PRUHONICE	79.49	40.8	12	8	-2	22	14	2		23	5 PS
TRIESTE	80.23	45.1	12	15	1	22	22	3		23	2 SP
ROME	80.43	49.1	12	18K	3	22	20	-1		15	38 PP
LJUBLJANA	80.62	44.6	12	15	-1					15	14 PP
VIENNA-H.	81.15	42.1	12	17	-2						
KAJAANI	81.20	24.8	12	19	-1						
NURMIJARVI	81.36	28.7	12	22A	2	22	28	-3			
BRATISLAVA	81.64	42.0	12	21	-1					15	18 PP
HELSINKI	81.64	29.0	12	21	-1						
ZAGREB	81.66	44.5	12	30	8	22	28	-6			
APATITY	81.69	20.6	12	21	-1	22	23	-11		15	16 PP
RACIBORZ	81.70	39.9	12	23	1	22	34	-1		15	38 PP
WARSAW	82.61	37.3	12	30	3	22	45	1		12	36 PCP
KRAKOW	82.75	39.6	12	29	1	22	46	1			
BUDAPEST	83.09	42.2	12	32	3	22	38	-11	12 40	30	20 SSS
MESSINA	83.81	51.9	12	32	-1	22	47	-9	12 44	13	12
PULKOVO	84.24	28.2	12	36	1					15	48 PP
TARANTO	84.30	49.3				22	56	-5			
BELGRADE	84.97	44.4	12	41K	2	23	6	-1		15	55 PP
TIMISOARA	85.13	43.3	12	7	-33					22	29
LWOW	85.29	38.8	12	38	-2					24	8
TIKSI	87.35	350.8	12	45	-6					16	12 PP
SOFIA	87.71	45.5	12	58	6	23	40	6		16	23
AMDERMA	87.79	12.1	12	50	-3						
MOSCOW	89.68	29.6	13	10A	8	23	53	1		29	54 SS
ATHENS	89.89	49.7	13	6	3	23	32	-22		23	55
PETROPAVLOVK	91.65	328.4	13	3	-8					16	31 PP
SIMFEROPOL	93.61	39.9	13	27A	7	23	52	-35		17	3 PP
YAKUTSK	95.64	345.8	13	32	3					24	13 SKKS
BANGUI	98.05	82.6	13	38	-2					17	38 PP
SVERDLOVSK	98.13	20.0				24	18	0		25	6 SCS
BYRD STATION	100.79	186.3								18	32
TIFLIS	101.84	38.1	14	6	9					25	7 SKKS
Y.-SAKHLINSK	103.30	330.7				24	55	12			
GORIS	104.14	39.1				24	41	-6		17	44
SOUTH POLE	108.79	180.0								20	6
IRKUTSK	108.96	356.3								19	3 PP
HERMANUS	109.01	120.8								28	33 PS
SEMIPALATNSK	109.13	12.3								18	59 PP
TEHERAN	109.64	39.3	18	43	777						
LWIRO	109.84	85.5	15	45K	777						
VLADIVOSTOK	111.10	334.5								19	18 PP
ASHKABAD	111.97	33.4								19	31 PP
WELLINGTON	112.46	232.4								27	25 PS
TUKUBASAN	112.57	324.5								28	56 PS
MATUSIRO	113.35	326.0	18	36	-4				18 58		

CAPE HALLETT	113.44	198.4	18 36	-4							29 13	
TASHKENT	114.21	23.8			25 38	9					19 49	PP
SHIRAZ	114.41	43.5									19 17	
FRUNSE	114.73	19.2									19 53	PP
ESEN BULAK	114.97	1.8									19 59	
ROXBURGH	116.66	228.0									27 25	PS
WARSAK DAM	121.42	26.3	19 5	9								
MAWSON	126.30	163.9	19 16K	11			19 21					
DEHRA DUN	127.22	22.4	19 16	9							21 52	
WILKES	131.95	186.4									23 0	
MIRNY	132.24	177.0	18 54	-23								

JULY 26 4.H 23.M 15.S EPICENTRE 47.30 154.01 DEPTH= 37.KM

A=-0.61186 B= 0.29824 C= 0.73259 D= 0.4381 E= 0.8989
G=-0.6585 H= 0.3210 K=-0.6807 HT= -4.4

DEPTH OF FOCUS= 0.001R

SE= 1.84

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
PETROPAVLOVK	6.46	25.7	1 34	-2	2 45	-4		3 9	
Y.-SAKHLINSK	7.71	272.1	1 55A	2	3 28	8			
UGLEGORSK	8.18	287.0	2 1K	1				3 46	
MAGADAN	12.42	352.4	2 59	1					
MATUSIRO	15.90	233.2	3 39K	-4	6 51	13			
VLADIVOSTOK	16.12	263.1	3 47	1				7 27	SS
YAKUTSK	20.18	325.8	4 34	-1	8 16	2			
CHANGCHUN	20.34	270.8	4 37	1	8 38	21			
TIKSI	27.11	342.8	5 39	-3					
PEKING	28.11	269.0	5 52	1	10 52	20			
ZO-SE	29.87	249.0	6 7	0					
COLLEGE	35.34	38.8	6 55	1					
SIAN	36.06	265.4	7 0A	0					
LANCHOW	38.52	271.7	7 21A	0					
MOULD BAY	43.88	20.2	8 6	1					
KUNMING	45.95	259.7	8 22A	0					
ALERT	49.15	5.9	8 46	-1					
RESOLUTE	50.13	18.9	8 55A	1					
LHASA	50.97	273.3	9 2	1					
ALMATA-2	52.03	295.7	9 8	-1					
SHILLONG	53.01	268.8	9 16A	0					
PENTICTON	54.39	53.4	9 25	-1					
CHATRA	55.39	273.4	9 34	1					
APATITY	57.09	336.8	9 44A	-1					
HUNGRY HORSE	57.98	51.8	9 52	0					
TASHKENT	58.07	297.9	9 53	1					
MINERAL	58.44	63.2	10 18	23					
TROMSOE	58.84	343.2	9 56	-2					
SODANKYLA	58.96	339.0	9 57K	-2					
KIRUNA	60.02	341.5	10 5A	-1					
NEW DELHI	60.97	281.7	10 9A	-3					
KAJAANI	61.25	336.2	10 12	-2				10 54	PCP
EUREKA	62.37	60.9	10 22	0					
DUGWAY	63.76	58.5	10 31	0					
PASADENA	64.48	66.7	10 47	11					
NURMIJARVI	64.97	335.0	10 38K	-1					
HELSINKI	65.16	334.7	10 39	-1					
FLAMING GRGE	65.24	56.0	10 41	0					
SKALSTUGAN	65.41	342.3	10 40A	-2					
CHARTERS TS.	67.43	187.9	10 53	-1					
UPPSALA	67.44	337.8	10 54A	0					
BERGEN	69.69	344.0	11 8	0					
GOTEBORG	70.74	339.5	11 15A	0					
ALBUQUERQUE	71.02	58.9	11 17	1					
KARLSKRONA	71.20	336.9	11 17A	-1					
TEHERAN	72.24	303.5	11 25	1					
COPENHAGEN	72.44	338.3	11 25	0					
SCHEFFERVLLE	72.59	23.3	11 26A	0					
SIMFEROPOL	74.04	320.2	11 34A	0					
LWOW	74.05	328.9	11 34	0					
KISHINEV	74.58	324.5	11 37A	0					
WICHITA MTS.	75.66	54.2	11 44	0	21 30	9		26 25	SS
SKALNATE PL.	75.89	330.7	11 45	0				11 57	PCP
SHIRAZ	75.97	298.4	11 46A	1			11 57	16 5	

COLLMBERG	76.23	336.0	11	47	0					13	25	
WITTEVEEN	76.44	340.3	10	49	-59							
ROLLA	76.80	47.9	11	50	0	21	34	1				
JENA	76.95	336.7	11	51	0							
PRUHONICE	76.97	334.5	11	51A	0							
FAYETTEVILLE	77.00	50.5	11	51A	0							
ST. LOUIS 1	77.06	46.4	11	52	0							
BRATISLAVA	77.79	332.1	11	57K	1							
VIENNA-H.	77.95	332.6	11	57	1							
SHAWINIGAN	77.97	30.9	11	55	-2							
KASPERSKE H.	78.01	334.7	11	57K	0					13	6	
BREBEUF	78.57	32.0	12	0K	0							
DOURBES	79.45	340.5	12	6	1							
STUTTGART	79.53	337.1	12	5	0							
STRASBOURG	80.10	338.0	12	10	2							
LJUBLJANA	80.49	332.7	12	10	0							
TRIESTE	81.09	333.0	12	13	0							
FOLINIERE	81.78	343.3	12	20	3							
BESANCON	81.79	338.6	12	18	1							
KSARA	82.03	312.2	12	22K	4							
GARCHY	82.45	340.5	12	21A	1							
ROSELEND	83.07	337.6	12	21	-3							
ATHENS	84.21	322.7								35	47	
ISOLA	84.36	336.8	12	31	1							
KARAPIRO	87.00	163.1	12	43	0							

JULY 26 8.H 14.M 41.S EPICENTRE 7.49 -82.75 DEPTH= 0.KM

A= 0.12513 B=-0.98365 C= 0.12955 D=-0.9920 E=-0.1262
G= 0.0163 H=-0.1285 K=-0.9916 HT= 6.8

SE= 2.35

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
BALBOA HTS.	3.48	65.0	0	55	-1							
CHINCHINA	7.52	109.1	1	49	-4	3	10	-10				
GALERAZAMBA	8.08	65.6	2	5	4	3	42	8				
SANTIAGO MA.	8.19	317.1	2	2	-1	4	12	35				
QUITO	8.76	150.9	2	6	-5	3	52	1				
SAN SALVADOR	8.83	314.7	2	9	-3	3	46	-7				
BOGOTA	9.09	107.8	2	16A	1	4	6	6				
BLACK RIVER	11.47	24.0	2	48	0							
HOPE	11.97	28.7	2	54	-1						13	24
COMITAN	12.64	314.3	3	8	4	5	38	12				
MERIDA	14.94	334.3	3	43	9	6	43	22			7	29
CARACAS	15.91	78.0	3	45K	-2	6	59	15				
OAXACA	16.64	306.0	3	59	3	7	15	14				
VERA CRUZ	17.44	313.2	4	9	3	7	40	21				
PUEBLA	18.89	308.9	4	45	21	8	29	37				
SAN JUAN	19.47	54.6	4	30	-1	8	13	8				
TACUBAYA	19.88	308.2	4	37	2	8	6	-8			8	33
HUANCAYO	20.77	159.1	4	43	-2	8	33	0				
GRENADA	21.20	76.0	4	46	-3							
TRINIDAD	21.31	79.9	4	48	-2	8	46	3				
ST. KITTS	21.84	61.5	4	55	-1						25	59
ST. VINCENT	21.86	73.3	4	57	1						9	10
ST. CLAUDE	22.27	65.7	5	2	2	9	45	44				
FORT FRANCE	22.37	69.4	5	2	1							
LEON	22.76	308.5	4	59	-6	9	29	19				
BARBADOS	23.44	74.3	5	14	3							
GUADALAJARA	23.83	305.5	5	19	4	9	53	24				
MANZANILLO	23.90	300.8									8	7
HOUSTON	25.11	333.3	5	29	1							
AREQUIPA	26.28	155.0	5	37	-2							
COLUMBIA	26.43	3.2	5	40K	0							
MAZATLAN	27.56	307.1	5	41	-9	10	30	-1				
LA PAZ	27.88	148.8	5	51	-2							
CHAPEL HILL	28.50	6.3	5	58	-1							
FAYETTEVILLE	30.33	341.4	6	18	3	11	5	-10				
CHIHUAHUA	30.44	316.6	5	49	-27	10	55	-22			16	52
TULSA	30.70	339.0	6	14	-4	11	19	-2				
WICHITA MTS.	30.77	333.9	6	15	-4						7	18 PP
ROLLA	31.39	346.0	6	23	-1							
LUBBOCK	31.40	328.4	6	24	-1							
GEORGETOWN	31.68	8.5	6	27	0	11	39	3				

WASHINGTON	31.68	8.5	6 27	0					10 25	
ST. LOUIS 1	31.74	348.8	6 26	-2	11 31	-6				
BLOOMINGTON	31.74	354.5	6 24	-4	11 38	1				
FLORISSANT	31.92	348.7	6 27	-2						
TERRE HAUTE	32.00	353.2							7 19	
PHILADELPHIA	33.02	10.7	6 39	0	12 0	3				
ANTOFAGASTA	33.26	159.1	6 41	0					8 44	
LAWRENCE	33.30	342.1	6 38	-3						
PENNSYLVANIA	33.45	6.7	6 41K	-1						
CLEVELAND	33.86	1.6	6 46K	0						
MANHATTEN	33.93	340.6	6 44	-3						
FORDHAM	34.15	12.0	7 49	60	13 3	48				
PALISADES	34.29	11.9	6 49K	-1	12 16	-1				
ALBUQUERQUE	34.95	324.8	6 55	0						
LONDON ONT.	35.43	2.0	6 59	-1						
TUCSON TELE.	35.87	317.4	7 2	-1						
TUCSON	35.89	317.1	7 2	-1	12 42	0				
WESTON	36.18	14.4	7 6	0	12 21	-25				
COPIAPO	36.66	161.3	7 12	2	12 56	2			8 36	
BREBEUF	38.68	10.3	7 26K	-1	13 19	-5	7 38		8 58	PP
LARAMIE	39.31	332.5	7 33	1					9 7	
GLEN CANYON	39.36	322.5	7 32	-1						
SHAWINIGAN	39.85	10.8	7 34	-3						
HALIFAX	40.57	21.1	7 39	-4						
RAPID CITY	40.59	337.2	7 42	-1					9 19	PP
PRICE	40.69	326.1	7 45A	1						
BOULDER CITY	40.78	318.7	7 46	2					13 54	
FLAMING GRGE	40.88	328.7	7 44	-1						
PASADENA	42.05	314.1	7 57	2	14 27	12			9 45	PP
SALT LAKE C.	42.07	326.5	7 57	2						
DUGWAY	42.22	325.2	7 57A	1						
SANTA LUCIA	42.30	164.9	7 57K	0	14 23	5			9 39	PP
EUREKA	43.61	322.1	8 8K	1						
PRIEST	44.82	315.1	8 19K	2						
BOZEMAN	45.21	332.1	8 21	1						
CONCEPCION	45.22	167.9	8 19	-1	15 3	2				
RENO	46.05	319.7	8 28A	1						
LICK	46.10	316.0	8 28K	1						
BUTTE	46.18	331.3	8 25	-3						
BERKELEY	46.79	316.3	8 34A	1	15 32	9			10 21	
CALISTOGA	47.40	317.0	8 39K	1						
MINERAL	47.64	319.6	8 38A	-2						
UKIAH	48.08	317.3	8 46	3						
HUNGRY HORSE	48.56	332.5	8 47	0						
SCHEFFERVLLE	48.90	12.2	8 47A	-2	15 47	-6				
BANFF	51.28	334.1	9 6	-2						
PENTICTON	51.90	330.1	9 11K	-1						
SEATTLE	52.24	327.0	9 15K	0					33 16	
VICTORIA	53.36	327.3	9 23K	0						
ANGRA DO HO.	58.66	49.1	10 9	8	18 30	25				
PONTA DELGDA	59.58	50.5	10 9K	1	18 16	-1	10 18		13 37	PPP
SITKA	64.03	331.1	10 38	1					13 3	PP
M.BOUR	64.78	77.7	10 42	0						
RESOLUTE	67.50	356.5	10 57	-3						
THULE	69.34	3.6	11 9	-2						
REYKJAVIK	70.83	23.9	11 20K	0					13 56	PP
HAWAII V.OB.	71.10	287.9	11 24	2	20 42	4				
MOULD BAY	71.55	351.3	11 21	-4						
SIDA	72.28	24.9	11 27	-2						
LISBON	72.56	51.9	11 31K	0	20 55	0			14 13	PP
COLLEGE	72.81	336.1	11 30A	-2	20 59	1			14 22	PP
SERRA PILAR	73.17	49.4	11 35A	1	21 3	1			14 19	PP
COIMBRA	73.23	50.4	11 33	-2	20 59	-4			11 53	PCP
SCORESBY SD.	73.46	17.8	11 35	-1	20 35	-30				
KIPAPA	73.62	290.1	11 39	2						
G. G. VIDELA	73.63	171.3	11 37	0	21 16	9			11 44	PCP
HONOLULU	73.70	290.0	11 39	2	21 6	-2				
ALERT	75.47	2.7	11 45	-2	21 22	-6				
MALAGA	76.23	54.1	11 52K	0	21 35	-1			14 47	PP
TOLEDO	76.57	50.9	11 55K	1	21 40	0			14 37	PP
GRANADA	76.88	53.7	11 57A	2	21 46	3			15 6	PP
ALMERIA	77.78	54.0	12 1K	1	21 55	2			14 56	PP
BENI ABBES	78.14	60.9	12 4	2	21 58	1			15 4	PP
ABERDEEN	78.67	33.2	12 5K	0	21 59	-3			15 6	PP
DURHAM	78.83	35.7	12 6A	0	22 5	1			15 14	PP
NORD	79.21	7.9	12 7	-1						
FOLINIERE	79.32	41.8	12 10	1						
ALICANTE	79.34	52.4	12 10	1	22 11	2			16 55	PPP
KEW	79.47	39.1	12 10K	0	22 9	-2			15 12	PP

TORTOSA	80.05	49.9	12	14	1	22	21	4		
PARIS	81.28	41.8	12	20	1	22	28	-2	14	41 PP
GARCHY	81.72	43.3	12	22	0				15	29 PP
CLERMONT-FD.	81.81	44.9	12	23K	1				15	25 PP
BERGEN	82.58	30.0	12	26	0					
DOURBES	82.61	40.4	12	26	0	22	43	0		
DE BILT	82.87	38.4	12	29	1	22	59	13		
LOME	83.26	84.7	12	7	-23	22	43	-7		
BESANCON	83.70	43.3	12	32	0				15	57 PP
WITTEVEEN	83.74	37.6	12	32	0					
ROSELEND	84.27	44.8	12	32	-3					
NEUCHATEL	84.38	43.5	12	35	0				15	51
ISOLA	84.70	46.3	12	38	1					
BASLE	84.76	42.9	12	38K	1	23	8	3		
STRASBOURG	84.79	41.8	12	37	0	23	6	1	15	39 PP
MONACO	85.01	46.7	12	39	1					
FELDBERG	85.07	40.1	12	39K	0					
HEIDELBERG	85.33	40.9	12	41	1					
SKALSTUGAN	85.59	26.5	12	42A	1				15	59
EBINGEN	85.62	42.1	12	41	0					
TUBINGEN	85.65	41.8	12	42K	0					
STUTTGART	85.76	41.5	12	42K	0	23	13	-1	16	7 PP
PAVIA	86.10	45.1	12	45K	1	23	21	3	24	8 PS
RAVENSBURG	86.10	42.5	12	44	0					
CHUR	86.15	43.4	12	45K	1	23	16	-2		
GOTEBORG	86.25	32.4	12	44K	-1				16	13 PP
CHIAVARI	86.30	46.0	12	1	-44	23	33	13	15	27 PP
COPENHAGEN	86.80	34.4	12	47	0	23	11	-13		
JENA	86.97	39.2	12	48	0	23	13	-13	16	10 PP
TROMSOE	87.07	20.1	12	48	-1					
HALLE	87.12	38.6	12	50	1	23	35	8		
FLORENCE X.	87.75	46.3	13	1	9	23	39	6	16	28 PP
COLLMBERG	87.80	38.7	12	52	0	23	36	2		
PADOVA	87.95	44.6	12	55K	2	23	34	-1	16	22 PP
KIRUNA	88.05	21.7	12	53K	0	23	19	-17	16	22 PP
KARLSKRONA	88.46	33.6	12	55K	0				16	24 PP
KASPERSKE H.	88.52	40.8	12	54	-1				16	17 PP
UPPSALA	88.76	29.8	12	55K	-2	23	42	-1	16	24 PP
PRAGUE	88.90	39.8	12	59K	2	23	37	-7	16	29 PP
ROME	88.93	48.0	12	59K	2	23	37	-7	16	28 PP
PRUHONICE	88.99	39.8	12	58K	0	23	35	-10	16	25 PP
TRIESTE	89.22	44.2	13	0K	1	23	51	4	16	30 PP
BYRD STATION	89.37	186.0	12	59	-1				22	32
LJUBLJANA	89.68	43.7	13	1K	0	23	53	2	16	34 PP
KEVO	89.73	19.1	13	1	0					
SODANKYLA	90.45	21.4	13	3K	-2	23	35	-23	16	34 PP
VIENNA-H.	90.50	41.3	13	6K	1	24	3	4	16	45 PP
ZAGREB	90.72	43.7	13	9	3	23	43	-18		
AFIAMALU	90.84	256.2	13	21	15					
BRATISLAVA	90.99	41.3	13	7A	0	23	41	-22	16	34 PP
RACIBORZ	91.28	39.2	13	10A	2	24	12	6	16	50 PP
HURBANOVO	91.78	41.4	13	13	2	23	55	-15	16	53 PP
MESSINA	91.89	51.3	13	9	-2	24	12	1	16	52 PP
NURMIJARVI	91.96	28.2	13	10K	-2	23	39	-33	16	52 PP
KAJAANI	92.06	24.3	13	12K	0				16	53 PP
HELSINKI	92.22	28.5	13	13	0					
KRAKOW	92.37	39.0	13	14	1				16	51 PP
BUDAPEST	92.41	41.7	13	14	0	24	11	-5	17	1 PP
WARSAW	92.47	36.7	13	14	0	23	47	-29	17	3 PP
TARANTO	92.73	48.8				22	54	-84		
APATITY	92.78	20.2	13	14K	-1	23	53	-26	16	57 PP
SKALNATE PL.	92.79	39.8	13	19	4	23	43	-36	16	56 PP
SARAJEVO	92.84	45.3	13	26	10	24	0	-19		
SZEGED	93.45	42.7	13	31	13	24	16	-9	17	9 PP
TITOGRAD	93.77	46.5	13	23	3	24	2	-25	25	20 PPS
BELGRADE	94.02	44.0	13	22K	1	23	56	-34	13	30 PCP
TIMISOARA	94.31	43.0	13	26	4	24	1	-31		
PULKOVO	94.87	27.9	13	24K	-1				24	4 SKKS
LWOW	94.98	38.5							17	18 PP
SKOPJE	95.45	46.6	13	31	3	24	52	49	23	41
SOFIA	96.60	45.5	13	35	2	24	16	7	17	27 PP
LUANDA	97.00	98.0	13	39A	4					
SOUTH POLE	97.44	180.0	13	37	0					
BANDEIRA	97.72	104.0	13	40A	2	25	1	46	17	39 PP
ATHENS	98.21	50.0	13	42K	2	24	16	-2	17	46
TIKSI	98.33	350.3	13	38A	-3	24	7	-11	17	37 PP
MOSCOW	100.19	29.7	13	49K	0	24	25	-3	17	56 PP
PETROPAVLOVK	100.57	327.3	13	53A	2	24	27	-3	20	13 PPP
SUVA	100.64	253.0							18	25 PP

BANGUI	100.67	84.1	13	47	-4	25	15	45			
MAGADAN	100.87	335.3	13	52	0	24	32	1			
SCOTT BASE	101.55	191.7	13	57	2						
CAPE HALLETT	102.25	197.4	13	58	0						
TUAI	102.52	232.0							18	21	PP
SIMFEROPOL	103.12	40.6	14	2K	0				18	15	PP
KARAPIRO	103.79	232.9	14	10	5				18	25	PP
HERMANUS	104.07	123.5							18	13	PP
WELLINGTON	104.28	229.4	14	11	4	24	34	-13	18	27	PP
ONERAHI	104.78	235.1							18	33	PP
GEBBIES PASS	105.69	226.8							33	46	PPS
COBB RIVER	105.83	229.5							27	57	PS
YAKUTSK	106.28	344.7	14	19	777				18	34	PP
ROXBURGH	107.87	224.7				25	15	12	18	25	PP
KSARA	108.89	50.6	14	28	777	25	18	11	19	2	PP
KIMBERLEY	108.92	117.7	18	7	777						
SVERDLOVSK	109.22	20.3	14	29	777				19	3	PP
PORT VILA	110.23	253.9							19	19	
TIFLIS	111.50	39.6	14	41	-235				19	19	PP
LWIRO	111.65	89.5	14	49	-227	25	33	14	19	29	PP
NOUMEA	112.02	249.0							19	28	
BROKEN HILL	112.32	102.5	18	41	3						
Y.-SAKHLINSK	112.41	328.2	14	48	-230	25	11	-11	19	33	PP
BULAWAYO	112.56	108.6	18	5	-33						
GORIS	113.68	41.0				25	18	-9	19	39	PP
KOUMAC	114.07	250.9							19	43	
DUMONT	114.13	197.2	18	43	2				26	46	
CHANGALANE	115.62	115.5	18	42	-2	24	55	-39	19	55	PP
MAWSON	115.68	166.1	18	45	1				19	50	PP
HONIARA	118.02	263.3	14	59	-230				20	3	PP
MIZUSAWA	118.33	322.2							20	21	
TEHERAN	119.11	41.9	15	22	-209				22	12	PKS
IRKUTSK	120.17	355.0	18	49	-4				20	15	PP
WILKES	120.53	186.2	18	54	0	25	49	-3	20	23	PP
VLADIVOSTOK	120.60	331.1	18	55	1				20	26	PP
TUKUBASAN	120.77	320.2	19	1K	7	25	58	6	20	30	PP
MIRNY	120.96	178.0	18	49	-5				20	17	PP
MATUSIRO	121.75	321.6	18	57	1	26	9	13			
CHANGCHUN	122.95	336.1							20	37	PP
SHIRAZ	123.33	47.2	18	59K	0				19	48	
RIVERVIEW	123.93	234.2	19	0	0	26	17	15	21	11	PP
BRISBANE	123.94	242.1	19	7	7				20	41	PP
ULAN-BATOR	124.17	352.2	15	42	-199						
TASHKENT	125.06	25.6	19	5	3	26	3	-3	20	58	PP
CANBERRA	125.21	231.8	19	4	1				21	7	PP
RABAUL	125.30	270.1	19	11	8						
FRUNSE	125.84	20.4	19	5	1				20	56	PP
ESEN BULAK	126.34	0.9	15	59	-186						
MELBOURNE	127.40	227.5							21	13	PP
GUAM	128.45	293.7	19	15	6						
KHOROG	129.21	26.5	19	11	1						
PEKING	129.59	341.2	19	11	0				21	22	PP
TANANARIVE	130.46	108.4	19	23A	10				21	38	PP
PORT MORESBY	130.64	264.1	19	23	10				21	31	PP
PAOTOW	130.74	347.2	19	14	1				21	30	PP
CHARTERS TS.	130.96	250.0	19	16	2				21	33	PP
WARSAK DAM	132.08	29.0	19	16K	0						
QUETTA	132.57	36.4	19	13	-4				21	44	PP
ADELAIDE	133.16	228.2	19	23	5				22	48	PKS
ZO-SE	135.31	330.3	19	17	-5				22	6	PP
LAHORE	135.42	28.3	19	34	12						
NANKING	135.62	333.5	19	17	-5				22	6	PP
LANCHOW	136.25	352.3	19	18	-5				22	0	PP
SIAN	137.04	345.8	19	21	-4				22	9	PP
DEHRA DUN	138.13	25.2	19	21	-6				31	58	
TAIPEI	139.95	324.6	19	38	8						
HWALIEN	140.71	323.4	19	26	-6				22	51	
HSINKONG	141.51	322.8	19	33	0						
CHENGTU	141.52	350.6	19	29A	-4				21	41	PP
TAITUNG	141.91	322.7	19	55	21						
TAINAN	142.27	324.0	19	51	17						
TAWU	142.36	322.5	19	48	14						
LHASA	142.60	8.9	19	34A	-1						
HENGCHUN	142.72	322.3	19	37	2						
BOMBAY	144.39	42.3	19	41	3				23	9	PP
CHATRA	144.51	15.6	19	38K	0						
POONA	145.34	41.5	19	43K	3	26	43	-4	23	2	PP
CANTON	145.77	333.0	19	44K	4				23	11	PP

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HONG KONG	146.07	331.1	19	45K	4					22	57 PP
DARWIN	146.59	258.9	19	50	8					20	29
SHILLONG	146.72	8.9	19	44A	2					23	35 PP
BAGUIO CITY	146.87	315.9	19	45	3					25	3
BOKARO	146.92	19.5	19	51	9					26	39
KUNMING	147.15	350.8	19	45K	2						
MANILA	147.70	313.0	19	50	7					23	48
HOWRAH	148.89	16.1	19	47	2						
CALCUTTA	148.92	16.1	19	59	14					37	29
HYDERABAD	149.04	36.7	20	2	16					23	24 PP
CHITTAGONG	149.86	10.0	19	52	5	27	4	11	20 5	23	49 PP
MUNDARING	149.92	213.4	19	49	2						
PERTH	150.14	213.0	20	4	17					23	40 PP
VISHAKHAPTNM	151.41	28.7	19	59	10					23	23 PP
MADRAS	153.50	39.9	20	17	25					23	50 PP
KODAIKANAL	153.58	48.5	20	16	24						
MEDAN	168.91	352.6	20	12	4					24	56
DJAKARTA	170.40	277.2	19	49	-20					25	16
TANGERANG	170.59	277.5	19	50	-19					25	17

JULY 27 12.H 38.M 29.S EPICENTRE 51.56-173.92 DEPTH= 0.KM

A=-0.62079 B=-0.06615 C= 0.78118 D=-0.1060 E= 0.9944
G=-0.7768 H=-0.0828 K=-0.6243 HT= -6.0

SE= 1.92

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PETROPAVLOVK	16.81	285.8	3	59	0							
COLLEGE	18.95	35.3	4	24	-1							
Y.-SAKHLINSK	28.33	278.1	5	59	1	10	45	1				
YAKUTSK	31.58	311.4	6	28A	1							
TIKSI	32.00	329.8	6	29	-1							
MOULD BAY	32.32	21.4	6	34	1							
PENTICTON	33.99	71.9	6	50	2							
MATUSIRO	36.84	265.0	7	11	-1							
VLADIVOSTOK	36.91	278.7	7	13A	0							
MINERAL	37.30	86.4	7	18A	2							
CALISTOGA	37.70	89.4	7	22A	3							
HUNGRY HORSE	37.73	70.6	7	21	1							
BERKELEY	38.37	90.2	7	27A	2	13	26	6				
LICK	39.08	90.4	7	33A	2							
PRIEST	40.45	91.0	7	45A	3							
CHANGCHUN	40.56	283.8	7	43	0	14	13	20				
BOZEMAN	40.83	72.6	7	47	2							
EUREKA	41.31	83.5	7	52	3							
ALERT	41.91	10.6	7	55	1							
DUGWAY	42.84	80.5	8	4A	2				8	13	8	24 *SSS
PASADENA	43.29	91.3	7	51	-14	14	37	4				
PEKING	48.31	285.1	8	45	0	16	3	18				
ULAN-BATOR	48.94	298.8	8	49	-1							
TUCSON	49.13	87.6	8	52	0							
TUCSON TELE.	49.14	87.4	8	52	0							
ZO-SE	51.05	272.7	9	6A	0	16	40	17				
PAOTOW	51.63	289.5	9	10	-1							
MANHATTEN	53.27	71.1	9	23	0							
WICHITA MTS.	55.03	76.5	9	37	1	17	25	7			11	44 PP
ESEN BULAK	55.59	303.0	9	40	0							
TULSA	55.92	73.6	9	42	0							
SIAN	56.46	284.3	9	45A	-1	17	53	16				
FAYETTEVILLE	56.75	72.4	9	46	-2							
ROLLA	56.88	69.3	9	49	0							
ST. LOUIS 1	57.35	67.6	10	5	12							
KEVO	58.03	351.6	9	52	-5							
LANCHOW	58.27	289.3	10	0	1							
TROMSOE	58.76	354.8	10	6	3							
BLOOMINGTON	59.10	64.8				18	17	6				
APATITY	59.45	348.2	10	6	-1							
SODANKYLA	60.39	351.0	10	12	-2							
KIRUNA	60.45	353.8	10	13	-1							
BREBEUF	61.52	51.9	10	21A	0							
CHENGTU	61.93	284.7	10	24A	0							
SVERDLOVSK	63.03	329.8	10	30	-2							
KAJAANI	63.47	349.6	10	33	-1							
UMEA	64.43	353.1	10	39	-2						10	52

SKALSTUGAN	65.10	356.9	10 44	-1				
KUNMING	66.71	281.4	10 55A	0				
NURMIJARVI	67.29	350.2	10 57K	-2				11 25 PCP
UPPSALA	68.56	353.8	11 6	-1				
LHASA	70.33	292.9	11 19A	1				
GOTEBORG	71.00	356.7	11 21	-1				
KARLSKRONA	72.36	354.4	11 30A	0				
TASHKENT	72.44	315.2	11 30	0				
SHILLONG	72.91	289.5	11 33K	0				
CHATRA	74.68	293.7	11 46	2				
DEHRA DUN	76.98	302.4	11 57	0				
WARSAK DAM	77.32	309.2	11 58	0				
COLLMBERG	77.35	355.6	11 59	0				20 12
JENA	77.78	356.4	12 2	1				
LAHORE	77.92	305.8	12 12	10				
DOURBES	78.71	1.0	12 6	0				
CHARTERS TS.	79.40	217.8	12 9	-1				
KASPERSKE H.	79.49	355.0	12 11	1				13 5
FOLINIERE	79.90	4.4	12 13	0				
VANNOVSKAYA	79.94	320.7	12 14	1				
STUTTGART	80.02	357.9	12 14	1				
STRASBOURG	80.23	358.9	12 17	3				
GARCHY	81.51	2.1	12 22	1			12 39	
QUETTA	82.67	310.3	12 28	1				
CLERMONT-FD.	83.02	2.1	12 31	2				
ROSELEND	83.13	359.6	12 31	2				
ISOLA	84.64	359.3	12 38	1				
BAGNERES	85.61	4.4	12 43	1				
SOUTH POLE	141.37	180.0	19 28	-5				
BULAWAYO	144.02	322.2	19 37	-1				
MAWSON	148.49	217.9	19 48A	3				20 3 PKP2
KIMBERLEY	153.26	321.3	20 1K	8				

JULY 28 0.H 5.M 7.S EPICENTRE -16.09-173.00 DEPTH= 0.KM

A=-0.95417 B=-0.11710 C=-0.27540 D=-0.1218 E= 0.9926
G= 0.2733 H= 0.0335 K=-0.9613 HT= 5.5

SE= 2.30

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
AFIAMALU	2.47	28.8	0 43K	1				
SUVA	8.44	254.7	1 58	-9				2 28
PORT VILA	17.95	262.1	4 17K	4	7 28	-3		
NOUMEA	20.35	249.1	4 39A	-2	8 16	-8		
KOUMAC	22.01	254.9	4 57A	-1	8 51	-6		
ONERAHI	22.61	207.5	5 4	0				
KARAPIRO	23.99	202.7	5 17	0				
TUAI	24.22	199.0	5 18	-1	9 17	-19		
TARATA	25.53	203.2	5 32	0				
HONIARA	27.18	280.8	5 46	-1				
WELLINGTON	27.24	200.4	5 48	0				
KAIMATA	29.54	203.7	6 11	3	11 7	4		
GEBBIES PASS	30.11	201.0	6 19	5	11 37	25		
ROXBURGH	32.85	203.2	6 43	5	11 54	-1		
BRISBANE	33.61	244.6	6 41	-3				8 12
RIVERVIEW	36.75	234.6	7 9	-2				17 31 SCS
CHARTERS TS.	38.86	257.8	7 27	-2				9 13
CANBERRA	38.92	233.3	7 27A	-2			7 40	7 45 *SP
PORT MORESBY	39.38	274.8	7 34A	1				
HONOLULU	39.93	21.9	7 41	3				
KIPAPA	40.07	22.0	7 42	3				
ADELAIDE	46.95	237.0	8 33	-2	15 21	-5		19 1
CAPE HALLETT	57.07	186.0	9 52	2				
SCOTT BASE	62.60	184.7	10 28	0				
MUNDARING	65.54	241.8	10 47	-1				
MATUSIRO	69.71	319.8	11 14A	0	20 21	-1		
WILKES	69.96	204.7	11 16	1	20 22	-3		
PRIEST	71.72	42.4	11 28A	2				
BERKELEY	71.75	40.2	11 28A	2	20 53	7	11 42	14 21 PP
LICK	71.82	40.9	11 28A	1				
CALISTOGA	72.04	39.4	11 29A	1				
PASADENA	72.22	45.4	11 10	-19	20 56	4		
PETROPAVLOVK	73.04	342.5	11 34A	0				
MINERAL	73.70	38.5	11 38A	0				
RENO	74.29	40.0	11 44	3				

Y.-SAKHLINSK	74.33	330.3	11	42A	1	21	12	-3		
BOULDER CITY	75.52	45.4	11	49	1					
UGLEGORSK	76.11	331.4	11	52A	0	21	28	-7		
EUREKA	76.68	41.9	11	56	1					
MIRNY	76.96	204.2	11	56	0	21	42	-2		
VLADIVOSTOK	77.57	322.1	12	0A	0	21	53	2		
ALBERNI	77.78	30.0	12	3	2					
SEATTLE	77.95	32.3	12	5A	3				22	20
VICTORIA	77.96	31.2	12	3	1					
LEMBANG	77.96	266.3	12	2A	0					
GLEN CANYON	78.26	45.9	12	25	22					
ZO-SE	78.68	307.1	12	6A	0					
TANGERANG	79.08	266.7	12	8	0					
DUGWAY	79.11	42.6	12	4A	-4				22	11 SCS
SALT LAKE C.	80.03	42.5	12	14	1					
PRICE	80.12	43.9	12	6A	-8					
PENTICTON	80.39	32.2	12	15A	0					
MAGADAN	80.90	342.3	12	17A	-1	22	27	1		
NANKING	80.94	307.0				22	31	5		
ALBUQUERQUE	80.95	49.7	12	19	1					
FLAMING GRGE	81.72	43.3	12	23	1					
CANTON	81.85	296.8	12	24A	1	22	37	1		
CHANGCHUN	81.96	319.9	12	24	1					
BUTTE	82.36	37.7	12	28	3					
HUNGRY HORSE	82.80	35.2	12	28	0					
COLLEGE	82.97	10.5	12	28	0	23	1	14		
BOZEMAN	83.07	38.6	12	30	1					
BANFF	83.60	32.3	12	32	0					
PEKING	86.22	313.4	12	47A	2	23	23	4		
WICHITA MTS.	86.75	52.6	12	48	1	23	30	6	16	9 PP
MAWSON	87.27	198.5	12	49K	-1					
SIAN	89.41	305.9	13	3A	3	23	57	8		
YAKUTSK	89.87	336.6				23	44	-9		
MANHATTEN	89.89	49.1	13	2	0	23	45	-9		
PAOTOW	90.76	312.1	13	8A	2	23	58	-3		
KUNMING	91.66	295.5	13	13A	2	24	14	4	24	6 SKS
CHENGTU	92.21	301.1	13	15A	2	24	17	3	23	47 SKS
ROLLA	92.91	51.5	13	18	2	24	26	6		
LANCHOW	93.94	306.2	13	23A	2					
FLORISSANT	94.33	51.0	13	23	0	24	16	-17		
ST. LOUIS 1	94.39	51.2	13	25	2	24	18	-15		
ULAN-BATOR	95.31	318.3	13	28A	1					
TIKSI	95.75	344.3	13	30K	1					
BLOOMINGTON	97.34	51.5				24	35	21		
MOULD BAY	97.53	11.2	13	37	0					
SHILLONG	101.29	293.5	13	53A	-1					
ESEN BULAK	101.97	315.0	13	56	-1					
PALISADES	107.16	51.5	14	23	777					
BREBEUF	107.82	46.8							28	29 PS
NEW DELHI	114.67	294.4	18	43A	0					
WARSAK DAM	119.76	300.2	18	55	3					
TASHKENT	121.19	308.8	18	56	1					
SVERDLOVSK	122.92	328.2	18	59	0					
QUETTA	123.68	295.7	19	2	2					
KEVO	124.93	351.6	19	2	0					
APATITY	125.80	347.8	19	5A	1				20	56 PP
TROMSOE	125.97	354.9	19	10	6					
SODANKYLA	127.18	350.6	19	7	0					
KIRUNA	127.57	353.6	19	8	0				21	7 PP
KAJAANI	129.98	348.3	19	6	-6				22	35 SKP
VANNOVSKAYA	130.23	306.3	19	15	2					
UMEA	131.45	352.2	19	9	-6				21	31 PP
KIMBERLEY	132.22	201.2	19	18A	2					
SKALSTUGAN	132.42	356.8	19	18	1					
PULKOVO	133.18	344.1	19	19A	1				22	47 PKS
NURMIJARVI	133.83	348.0	19	8	-11				21	49 PP
MOSCOW	134.03	336.4	19	22	2				22	52 PKS
HELSINKI	134.08	347.6	19	11	-9					
UPPSALA	135.62	352.3							21	58 PP
TEHERAN	135.97	305.0	19	26	3					
BULAWAYO	138.20	211.3	19	19	-8					
GOTEBORG	138.29	356.0	19	22	-6					
GORIS	138.57	312.2	19	32K	4					
COPENHAGEN	140.26	355.2	19	14	-17					
DURHAM	140.83	7.9	19	28	-4				23	10 PKS
WARSAW	142.26	345.9	19	33K	-2				22	41 PP
BROKEN HILL	142.98	216.1	19	35	-1					
WITTEVEEN	143.35	0.3	19	35	-1					
LWOW	143.63	341.3	19	36	-1				22	47

PONTA DELGDA	144.04	46.8	19 37	-1							
DE BILT	144.04	1.9	19 38	0					22 53	PP	
KEW	144.22	7.8	19 38	0							
HALLE	144.45	354.7	19 39	1					22 59	PP	
KRAKOW	144.54	345.6	19 39	0							
COLLMBERG	144.55	353.5	19 36	-3					22 0		
RACIBORZ	144.90	347.4	19 40	1							
JENA	145.05	354.9	19 39	0			20 2		23 2	PP	
UZHGOROD	145.21	342.1	19 41	1							
PRAGUE	145.57	351.5	19 44A	4							
FELDBERG	145.94	358.3	19 48	7							
DOURBES	146.02	2.8	19 43	2							
KASPERSKE H.	146.61	352.1	19 44	2					23 11	PP	
HEIDELBERG	146.75	357.9	19 45	3							
FOLINIERE	146.84	9.1	19 44	1							
BRATISLAVA	146.94	347.6	19 43	0					23 16	PKS	
VIENNA-H.	147.01	348.5	19 45A	2					24 12	PKS	
BUDAPEST	147.15	344.9	19 45	2							
PARIS	147.16	5.5	19 48	5					20 3	PKP2	
STUTTGART	147.35	357.2	19 45	2					33 26	PSKS	
STRASBOURG	147.59	359.0	19 45	1	27 22	31			30 23	SKKS	
TUBINGEN	147.60	357.4	19 49	5							
EBINGEN	147.96	357.5	19 47	3							
RAVENSBURG	148.32	356.6	19 46	1							
KSARA	148.58	309.5	19 50	5							
BANDEIRA	148.58	191.8	19 49	4					19 52	PKP2	
BASLE	148.64	359.2	19 22A	-23					24 9		
GARCHY	148.73	5.2	19 53	7					23 22	PP	
BESANCON	148.92	1.3	19 47	1							
BELGRADE	149.19	341.1	19 54A	8					22 11		
CHUR	149.26	356.6	19 53	7							
ZAGREB	149.42	347.6	19 51	4							
LJUBLJANA	149.47	349.7	19 47A	0			20 4		19 55	PKP2	
JERUSALEM	149.97	306.4	19 50	2							
TRIESTE	149.99	350.5	19 51K	3			20 7		19 57	PKP2	
SOFIA	150.02	335.5	19 52	4					19 58	PKP2	
CLERMONT-FD.	150.23	5.5	19 54	6							
PADOVA	150.48	353.0	19 53	5					21 13		
ROSELEND	150.49	0.5	19 56	8							
PAVIA	150.94	356.8	19 57	8					31 9	SKKS	
SERRA PILAR	151.63	25.3	19 49A	-1					23 39	PP	
LWIRO	151.78	231.7	19 54K	4							
ISOLA	152.00	359.9	19 53K	2							
FLORENCE X.	152.16	353.4	19 55	4					23 38	PP	
MONACO	152.45	359.3	19 55	4							
BAGNERES	152.48	10.9	19 54	3							
ATHENS	153.68	329.1	20 2K	9							
ROME	153.85	350.7	19 54	1			20 14		23 37	PP	
TOLEDO	154.41	20.0	19 58	4					23 53	PP	
MESSINA	156.72	342.8	20 26	29					25 7		
GRANADA	156.99	22.1	20 31A	34					24 41	PP	
MALAGA	157.09	24.1	20 0A	2					24 10	PP	

JULY 28 19.H 42.M 57.S EPICENTRE 36.64 142.23 DEPTH= 28.KM

A=-0.63583 B= 0.49262 C= 0.59417 D= 0.6125 E= 0.7905
G=-0.4697 H= 0.3639 K=-0.8043 HT= -0.5

SE= 3.15

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
ONAHAMA	1.11	286.6	0	19A	-1	0	32	-3				
MITO	1.44	260.2	0	23A	-2	0	41	-2				
TYOSI	1.45	231.1	0	24A	-1	0	40	-3				
SHIRAKAWA	1.68	287.2	0	27	-1	0	40	-9				
KAKIOKA	1.70	256.8	0	27A	-1	0	34	-16				
TUKUBASAN	1.77	257.0	0	27K	-2							
HUKUSIMA	1.79	308.8	0	29A	-1	0	43	-9				
UTUNOMIYA	1.90	268.0	0	30	-1	0	52	-3				
ISINOMAKI	1.93	338.2	0	30A	-2	0	54	-1				
SENDAI	1.94	327.3	0	31A	-1	0	50	-6				
HONGO	2.20	245.8	0	36	0						0	59
YAMAGATA	2.20	317.6	0	35A	-1	0	53	-9				
TOKYO C.M.O.	2.23	245.3	0	35A	-1	1	4	1				
KUMAGAYA	2.35	258.9	0	36A	-2	1	7	1				

YOKOHAMA	2.42	240.8	0	40	1	1	15	7			
MAEBASI	2.56	265.6	0	40A	-1	1	7	-4			
MERA	2.60	229.4	0	43	2	1	27	15			
TITIBU	2.63	256.5	0	41	-1	1	15	2			
MIZUSAWA	2.64	341.0	0	40	-2	1	10	-3			
NIIGATA	2.84	297.7	0	46	1	1	26	7			
SAKATA	2.95	320.6	0	48	2	1	15	-6			
OSIMA	2.98	232.1	0	48	1						
OIWAKE	2.98	265.2	0	48	1	1	14	-8			
AJIRO	3.00	239.0	0	46	-1	1	19	-3			
MIYAKO	3.01	356.1	0	49	2	1	28	5			
HUNATU	3.03	249.0	0	47	0	1	22	-1			
MISIMA	3.07	241.4	0	48	0	1	16	-8			
KOHU	3.13	253.1	0	49	0	1	35	9			
MORIOKA	3.17	345.0	0	51	2	1	30	3			
TAKADA	3.23	279.4	0	51A	1	1	23	-5			
MATUSIRO	3.24	269.5	0	49A	-1	1	27	-2			
NAGANO	3.24	271.8	0	51	1	1	37	8			
MATUMOTO	3.46	264.8	0	53	-1	1	35	1			
AIKAWA	3.46	294.7	0	52	-2	1	44	10			
AKITA	3.51	332.0							2	50	
SHIZUOKA	3.53	243.0	0	56	1	1	56	20			
IIDA	3.74	253.9	0	57	0	1	45	4			
OMAESAKI	3.85	239.3	1	7	8						
HATINOHE	3.92	352.1	1	1	1	1	48	2			
TAKAYAMA	4.05	264.6	1	2	0						
HATIDYOZIMA	4.06	210.3	1	2	0						
HAMAMATU	4.14	243.8	1	7	4	2	12	20			
AOMORI	4.33	345.2	1	7	1	2	0	4			
WAZIMA	4.33	281.4	1	5	-1	2	6	10			
KANAZAWA	4.49	270.3	1	4	-4	1	59	-1			
NAGOYA	4.52	252.6	1	10	1	2	21	20			
HUKUI	4.88	264.9	1	13	-1						
KAMEYAMA	5.02	250.9	1	25	9	2	27	13			
HIKONE	5.04	256.1	1	18	2	2	31	17			
TSURUGA	5.08	260.6	1	19	2						
HAKODATE	5.29	348.0	1	23	4	2	22	2			
URAKAWA	5.52	4.2	1	25	2	2	27	1			
KYOTO	5.52	254.9	1	23	0	2	35	9			
OWASE	5.56	244.3	1	24	1	2	54	27			
NARA	5.57	251.3	1	17	-6						
MORI	5.60	347.2	1	33	9	2	36	8			
HIROO	5.70	8.2	1	18	-7	2	26	-5			
ABUYAMA	5.70	253.9	1	23A	-2						
MURORAN	5.76	350.7	1	33	7	2	24	-8			
OSAKA	5.81	252.0	1	31	4	2	53	20			
TOMAKOMAI	6.01	355.4	1	34	5	2	36	-2			
KOBE	6.06	253.3	1	39	9	3	45	65			
TOYOOKA	6.10	261.8	1	35K	4						
SIOMISAKI	6.18	240.9	1	43	11	2	54	11			
OBIHIRO	6.32	6.5	1	37	3						
SUTTSU	6.34	346.5	1	39	5	2	57	10			
SUMOTO	6.40	251.2	1	36	1	3	14	26			
SAPPORO	6.46	354.2	1	42	6	2	54	4			
KUSIRO	6.55	14.1	1	29	-8	2	34	-18			
TOTTORI	6.62	262.6	1	39	1						
ASAHIGAWA	7.13	0.8	1	46	1	3	11	5			
NEMURO	7.16	20.0	1	42	-4	2	59	-8			
SAIGO	7.19	269.2	1	48	2						
RUMOE	7.32	356.5	1	45	-3						
MATSUE	7.52	263.6	1	49	-2						
ABASHIRI	7.54	11.3	1	45	-6						
KOTI	7.77	249.2	2	15	21	3	26	4			
MATUYAMA	8.22	252.9	2	7	6	3	40	6			
HIROSIMA	8.31	257.1	1	35	-27						
HAMADA	8.44	261.1	2	6	2	4	12	33			
OOITA	9.35	251.8	2	29	13	4	50	48			
SIMONOSEKI	9.62	257.1	2	19	-1						
HUKUOKA	10.18	256.0	2	29	1	4	50	28			
KUMAMOTO	10.23	251.5	2	32	4						
VLADIVOSTOK	10.24	312.4				4	15	-9		2	29
Y.-SAKHLINSK	10.38	1.9	2	27A	-3	4	17	-10			
NAGASAKI	10.89	252.6	2	37	0	5	27	48			
KAGOSIMA	10.92	245.8	2	53	15					3	16
YAKUSIMA	11.57	241.1	2	45	-2						
CHANGCHUN	14.77	304.3	3	28	-1	6	20	7			
ZO-SE	18.32	258.6	4	12	-2	7	39	5			
NANKING	19.88	263.6	4	28	-4	8	12	3			

PETROPAVLOVK	20.02	29.9	4	33K	-1					5	6 PPP
PEKING	20.70	287.4				8	19	-6			
MAGADAN	23.59	10.9	5	11A	2						
PAOTOW	25.39	288.8				9	52	3			
SIAN	27.17	274.9	5	42	-1	10	28	10			
BAGUIO CITY	27.82	229.4	5	46	-3					11	43
HONG KONG	28.18	247.3				10	35	0			
ULAN-BATOR	28.23	304.7	5	51	-2						
CANTON	28.34	249.6				10	41	4			
LANCHOW	30.80	280.6	6	13	-3	11	14	-2			
ESEN BULAK	35.34	300.6	6	56	1						
KUNMING	35.56	262.5				12	25	-5			
TIKSI	35.74	352.8	6	57K	-2						
LHASA	43.01	276.0	8	1	2	14	27	5			
SHILLONG	44.07	270.2	8	6K	-2						
SEMIPALATNSK	45.70	307.9	8	21	0	15	0	-1			
CHATRA	47.29	274.5	8	33	0						
COLLEGE	49.08	32.1	8	48	1						
DEHRA DUN	53.03	283.0	9	23	6						
LEMBANG	54.04	224.2	9	22A	-2						
NEW DELHI	54.45	281.5	9	23A	-3						
TASHKENT	55.36	298.9	9	36	2	17	16	1			
SVERDLOVSK	55.88	318.9	9	37	-1	17	21	-1			
WARSAK DAM	56.51	289.9	9	42	0						
CHARTERS TS.	56.55	175.5	9	38	-5						
MOULD BAY	56.73	16.5	9	44	0						
ALERT	60.48	3.6	10	9	-1						
QUETTA	61.70	288.0	10	19	1						
APATITY	63.32	336.0	10	28A	-1						
ASHKABAD	64.43	299.4	10	36	0	19	14	2			
SODANKYLA	65.58	337.5	10	43	-1						
VICTORIA	66.22	46.4	10	48K	0						
TROMSOE	66.30	341.4	10	51	3						
KIRUNA	67.12	339.5	10	52	-1	19	45	1			
KAJAANI	67.23	334.3	10	54	0					11	22 PCP
MOSCOW	67.96	323.8	10	58A	-1	19	55	1		11	20 PCP
PENTICTON	67.99	44.3	10	59	0						
PULKOVO	68.86	329.8	11	8	4	20	6	1			
UMEA	69.91	336.4	11	9	-2	20	18	0			
TEHERAN	70.37	300.3	11	15	2						
NURMIJARVI	70.60	332.3	11	13	-2						
HELSINKI	70.71	331.9	11	26	10						
MINERAL	71.51	53.2	11	21A	1						
TIFLIS	71.58	308.5	11	21	0						
HUNGRY HORSE	71.63	43.1	11	23	2						
CALISTOGA	71.79	55.2	11	24K	2						
GORIS	71.79	305.9	11	22	0						
BERKELEY	72.42	55.7	11	27K	1						
SKALSTUGAN	72.52	338.9	11	30	4						
SHIRAZ	72.79	294.3	11	27A	-1	20	48	-3	11 37	14	14 PP
LICK	73.12	55.9	11	26K	-4						
UPPSALA	73.60	334.3	11	31	-2					11	50 PCP
PRIEST	74.44	56.5	11	40K	2						
BOZEMAN	74.85	44.1	11	42	2						
EUREKA	75.58	51.5	11	46	2						
DUGWAY	77.12	49.4	11	55	2						
GOTEBORG	77.16	335.1	11	52	-1						
PASADENA	77.24	57.0	11	55	1						
LWOW	78.08	324.3	12	0	2						
BOULDER CITY	78.38	53.8	12	0	0						
COPENHAGEN	78.57	333.6	12	3	2	22	19	25			
FLAMING GRGE	78.72	47.2	12	3	1						
KRAKOW	79.80	326.4	12	7	0					12	17 PCP
GLEN CANYON	79.84	51.4	12	9	1						
KARAPIRO	80.34	153.9	12	11	1						
PRAGUE	82.15	329.1	12	25	5						
PRUHONICE	82.16	329.0	12	21	1	22	34	2			
BRATISLAVA	82.44	326.5	12	19	-2						
JENA	82.62	331.0	12	22	0						
WITTEVEEN	82.90	334.6	12	26	2						
KASPERSKE H.	83.22	328.9	12	25	0					15	29 PP
ALBUQUERQUE	84.33	50.3	12	33	2						
STUTTGART	85.24	330.9	12	37	2				12 45		
DOURBES	85.88	334.2	12	37	-2						
STRASBOURG	85.98	331.6	12	49	10					15	45
KEW	86.32	337.6				23	18	5			
MANHATTEN	87.11	41.7	12	45	0						
PARIS	87.71	334.7	12	49	1						

FOLINIERE	88.73	336.4	12	53	1		
GARCHY	88.81	333.6	11	54	-59	12	18
WICHITA MTS.	89.21	46.0	12	56	1	13	41
ROME	89.35	325.0				29	43
TULSA	89.93	43.5	12	58	0		
ROLLA	90.54	39.9	12	59	-2		
FLORISSANT	90.63	38.4	13	11	10		
FAYETTEVILLE	90.68	42.4	13	3K	1		
ST. LOUIS 1	90.82	38.4	13	4	2		
BREBEUF	92.07	24.3	13	9A	1		
SOUTH POLE	126.45	180.0	19	2	1		

JULY 28 20.H 46.M 30.S EPICENTRE 44.48 148.68 DEPTH= 43.KM

A=-0.61154 B= 0.37210 C= 0.69825 D= 0.5198 E= 0.8543
G=-0.5965 H= 0.3630 K=-0.7159 HT= -3.4

DEPTH OF FOCUS= 0.002R

SE= 2.96

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
Y.-SAKHLINSK	4.88	303.4	1	14	1	2	13	4				
UGLEGORSK	6.46	317.7	1	39A	4							
MIZUSAWA	7.77	229.1	1	54	1	3	3	-18				
TUKUBASAN	10.53	221.3	2	26A	-5	4	15	-14				
PETROPAVLOVK	10.78	34.0	2	32	-3	4	39	4				
MATUSIRO	11.24	228.7	2	37A	-4	4	43	-3				
VLADIVOSTOK	12.21	269.5	2	57	3							
MAGADAN	15.15	4.1	3	32A	-1							
CHANGCHUN	16.78	276.0	4	0	7	7	15	18				
YAKUTSK	20.77	334.4	4	38A	-2	8	25	1				
PEKING	24.38	270.9	5	16	1	9	36	7				
ZO-SE	25.37	247.6				9	53	7				
PAOTOW	28.57	275.8	5	59	5	10	53	15				
TIKSI	28.86	347.1	5	52	-5							
LANCHOW	34.88	271.8	6	49	0	12	16	-1				
ESEN BULAK	36.28	292.0	7	2	1							
COLLEGE	39.84	36.6	7	30	-1							
MOULD BAY	47.78	18.9	8	33	-2							
SHILLONG	49.18	267.1	8	45K	-1							
CHATRA	51.79	271.7	9	6K	0							
SVERDLOVSK	53.37	316.8	9	16	-2							
RESOLUTE	53.95	17.1	9	19	-3							
TASHKENT	56.05	296.8	9	36	-1							
DEHRA DUN	56.22	281.1	9	39	1							
NEW DELHI	57.84	279.9	9	46A	-4							
APATITY	58.17	335.9	10	1	9							
WARSAK DAM	58.59	288.4	9	54	-1							
PENTICTON	59.06	49.7	9	56	-2							
BANFF	60.19	46.2	10	4	-2							
SODANKYLA	60.21	337.8	10	5	-1							
TROMSOE	60.41	342.0	10	6	-2							
KIRUNA	61.46	340.2	10	13	-2							
KAJAANI	62.27	334.8	10	19	-1							
HUNGRY HORSE	62.64	48.2	10	22	-1							
MINERAL	63.06	59.0	10	27A	2							
CALISTOGA	63.48	61.0	10	44A	16							
UMEA	64.64	337.4	10	33	-3							
LICK	64.86	61.7	10	45	8							
VANNOVSKAYA	65.05	299.3	10	37	-1							
NURMIJARVI	65.88	333.3	10	41	-3							
HELSINKI	66.04	332.9	10	44	-1							
PRIEST	66.21	62.2	10	57K	11							
SKALSTUGAN	66.89	340.4	10	48	-2							
EUREKA	67.01	56.8	10	50	-1							
DUGWAY	68.42	54.5	11	0	0							
UPPSALA	68.57	335.9	10	58	-2							
PASADENA	69.05	62.5	11	9	6							
FLAMING GRGE	69.91	52.1	11	7	-2							
BOULDER CITY	69.95	59.1	11	8	-1							
KIROVOBAD	70.33	307.9	11	11	0							
TIFLIS	70.47	309.5	11	12	0							
TEHERAN	70.60	301.2	11	14	1							
GOTEBORG	71.98	337.2	11	18	-3							
KARLSKRONA	72.23	334.6	11	19	-4							

COPENHAGEN	73.58	335.9	11	30K	-1							
SHIRAZ	73.93	295.8	11	33A	0			11	45			
TUCSON	74.91	59.6	11	51	13							
TUCSON TELE.	74.91	59.5	11	51	13							
ALBUQUERQUE	75.68	55.0	11	42	-1							
UZHGOROD	76.06	326.6	11	44	-1							
RACIBORZ	76.43	329.7	11	45	-2							
SCHEFFERVLLE	76.59	20.2	11	47	-1							
COLLMBERG	77.18	333.3	11	58A	7					12	44	
WITTEVEEN	77.73	337.5	11	55	1							
PRUHONICE	77.79	331.7	11	54A	-1	21	48	5				
JENA	77.95	333.9	11	54	-1	21	57	13		12	16	
MANHATTEN	78.07	46.2	11	56	0							
BRATISLAVA	78.42	329.3	11	59K	1							
VIENNA-H.	78.62	329.7	12	0K	1							
KASPERSKE H.	78.85	331.8	12	1	1					12	59	
WICHITA MTS.	80.33	50.4	12	9	1					15	9	PP
STUTTGART	80.56	334.1	12	10	0							
KEW	80.74	340.9	12	10	0							
DOURBES	80.74	337.5	12	10	-1							
STRASBOURG	81.19	334.9	12	12	-1							
ROLLA	81.43	44.2	12	14	0							
FAYETTEVILLE	81.66	46.8	12	14	-1							
ST. LOUIS 1	81.68	42.7	12	17	2							
PARIS	82.49	338.2	12	21	1							
BREBEUF	82.88	28.5	12	20K	-2							
BLOOMINGTON	83.00	40.0	12	28	6							
FOLINIERE	83.28	340.0	12	23	-1							
GARCHY	83.73	337.2	12	26	0							
ROSELEND	84.13	334.3	13	28	60							
CLERMONT-FD.	85.10	336.6	12	47	14							

JULY 30 17.H 16.M 43.S EPICENTRE -3.25 143.92 DEPTH= 0.KM

A=-0.80693 B= 0.58796 C=-0.05630 D= 0.5889 E= 0.8082
G= 0.0455 H=-0.0332 K=-0.9984 HT= 7.1

SE= 2.64

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
PORT MORESBY	6.90	152.5	1	44A	-1	3	13	8					
RABAUL	8.29	96.8	2	6	2	3	38	-2					
DARWIN	15.82	234.3	3	44	-2								
GUAM	16.62	2.8	3	57	1								
CHARTERS TS.	16.89	172.4	3	58	-1	7	20	13					
HONIARA	17.07	111.8	4	2A	0	7	17	6					
BRISBANE	25.46	161.4	5	31	0						8	50	
KOUMAC	26.26	132.5	5	46A	7	9	37	-33					
MANILA	28.80	308.7	5	58	-4						13	8	
NOUMEA	28.92	132.8	5	57	-6	10	32	-21					
BAGUIO CITY	30.23	311.0	6	14	-1								
RIVERVIEW	31.16	168.3	6	21A	-2						7	23	PP
ADELAIDE	31.93	188.1	6	27A	-3	11	37	-4			9	9	PCP
CANBERRA	32.26	172.2	6	31A	-1				6	33	7	37	PP
HENGCHUN	33.81	319.0	7	1	15								
TAWU	33.96	319.6	7	1	14								
HWALIEN	34.69	322.4	6	54	1	12	47	24					
ALISHAN	34.87	320.9	7	3	8								
ILAN	35.21	323.5	6	59	1	11	48	-43					
TAICHUNG	35.40	321.5	7	26	26								
TAIPEI	35.54	323.5	7	4	3	12	40	3					
YAKUSIMA	35.88	340.0	7	5	1	12	44	2					
LEMBANG	36.33	262.9	7	8K	1								
KAGOSIMA	36.89	340.8	7	15	3	13	29	32					
SUVA	36.90	116.2	7	22	10						8	52	PP
DJAKARTA	37.07	264.1	7	14	0								
ASHIZURI	37.23	344.7	7	15	0	12	58	-4					
SIOMISAKI	37.30	348.7	7	11	-5	13	6	2			8	45	PP
NHATRANG	37.76	294.6	7	18	-1								
OWASE	37.83	349.5	7	21	1	12	6	-66					
KOTI	37.89	345.8	7	20A	-1	13	3	-10			8	51	PP
ASOSAN	37.96	342.3	7	20	-1						17	37	
KUMAMOTO	38.00	341.8	7	23	2	13	10	-4					
OMAESAKI	38.03	352.4	7	7	-15								
OSIMA	38.06	353.9	7	21A	-1	13	17	2					

OOITA	38.10	343.2	7	23	1	13	21	5			
MERA	38.16	354.6	7	19	-4	13	8	-9			
NAGASAKI	38.18	340.7	7	23A	0	13	20	3			
HAMAMATU	38.21	351.7	7	23	0						
SUMOTO	38.34	347.9	7	24A	0	12	57	-22			
MATUYAMA	38.36	345.0	7	20	-4	12	43	-37			
AJIRO	38.36	353.6	7	22	-3						
SHIZUOKA	38.37	352.7	7	25	0					10	59
MISIMA	38.45	353.4	7	25	0						
TAKAMATU	38.51	346.8	7	31	5	13	12	-10			
HUKUE	38.51	339.4	7	26	0	13	29	7			
OSAKA	38.51	348.9	7	23	-3					9	55
SAGA	38.52	341.5	7	27	1						
KAMEYAMA	38.54	350.1	7	25	-1	13	28	6			
HONG KONG	38.60	312.6	7	27A	0	13	25	2		7	59
KOBE	38.61	348.4	7	26	-1					16	41
MUNDARING	38.66	219.3	7	25	-2						
YOKOHAMA	38.68	354.4	7	26A	-1						
ABUYAMA	38.72	349.0	7	27A	-1						
NAGOYA	38.77	350.9	7	27A	-1	13	6	-20		9	11 PP
HUKUOKA	38.80	341.8	7	29A	1	13	30	4			
KYOTO	38.84	349.3	7	25	-3	13	15	-12			
HUNATU	38.85	353.3	7	28	-1	13	45	18			
PERTH	38.88	219.6	7	29	0	13	10	-18		9	0 PP
TOKYO C.M.O.	38.92	354.6	7	28A	-1	13	25	-3			
HONGO	38.95	354.6	7	41	12						
HIROSIMA	38.95	344.8	7	30	1					16	25
IIDA	38.97	352.1	7	31	1	10	46	17			
SIMONOSEKI	38.98	342.7	7	31	1						
HIKONE	38.99	350.0	7	31	1	13	33	4		9	2 PP
GIHU	39.03	350.7	7	30	0						
KOHU	39.04	353.1	7	29	-1						
TITIBU	39.29	353.8	7	32	0						
KUMAGAYA	39.42	354.2	7	33	0	13	40	4			
TUKUBASAN	39.43	355.1	7	31K	-2	13	33	-3	7 34	9	0 PP
KAKIOKA	39.43	355.2	7	31	-2	13	46	10			
TOYOOKA	39.51	348.3	7	33	-1					9	6
HAMADA	39.55	344.6	7	35A	1	13	28	-10		16	53
TOTTORI	39.62	347.5	7	40	5						
MATUMOTO	39.68	352.5	7	37	1						
CANTON	39.69	312.8	7	37A	1	13	44	4	7 54		
TAKAYAMA	39.69	351.5	7	32	-4						
OIWAKE	39.69	353.2	7	35	-1	13	43	3			
MAEBASI	39.70	353.9	7	36A	0					9	57
UTUNOMIYA	39.77	354.9	7	35	-1						
MATSUE	39.82	346.1	7	38	1	13	48	6			
MATUSIRO	39.94	352.8	7	36A	-2	13	45	1			
NAGANO	40.07	352.8	7	37	-2	13	45	-1			
ONAHAMA	40.09	356.2	7	38A	-1	13	50	4			
KANAZAWA	40.15	350.9	7	29	-10						
SHIRAKAWA	40.31	355.4	7	40	-1						
ZO-SE	40.45	329.3	7	42A	0	13	51	0	8 0		
SAIGO	40.47	346.8	7	43	1					17	15
TAKADA	40.49	353.0	7	42	0						
HUKUSIMA	40.92	355.8	7	55	9						
WAZIMA	40.95	351.5	7	47	1						
NIIGATA	41.21	354.1	7	50	2					15	41
AIKAWA	41.40	353.2	7	49	-1						
SENDAI	41.40	356.4	7	49	-1					19	34
YAMAGATA	41.42	355.7	7	50A	0	14	11	5			
ISINOMAKI	41.54	356.9	7	50	-1						
SAKATA	42.11	355.2	7	56	1	14	44	28			
MIZUSAWA	42.25	356.8	7	55	-2	14	20	2			
MORIOKA	42.81	356.9	8	1A	0	14	31	5			
ONERAHI	42.88	142.7	8	6	4					8	31
AKITA	42.90	355.7	8	3	1	14	29	1			
HATINOHE	43.62	357.4	8	7	-1	14	42	4			
AOMORI	43.95	356.6	8	13	3	14	56	13			
HAKODATE	44.94	356.7	8	19	1					9	4
AFIAMALU	44.98	106.4	8	22	3						
KARAPIRO	45.03	144.1	8	19A	0					10	12 PP
URAKAWA	45.20	358.8	8	21	0						
TARATA	45.23	146.3	8	22	1					11	33 PPP
MORI	45.24	356.5	8	25	4						
HIROO	45.32	359.4	8	26	5						
MURORAN	45.43	356.9	8	21	-1						
TOMAKOMAI	45.71	357.6	8	39	14						
COBB RIVER	45.72	149.4	8	25	0						
MEDAN	45.72	278.1	8	24A	-1					15	26

SUTTSU	45.96	356.2	8	28	1							
OBIHIRO	45.96	359.3	8	21	-6							
KUSIRO	46.02	0.5	8	26A	-1	15	17	4				
SAPPORO	46.16	357.4	8	27K	-1	14	54	-21			9	51 PP
NEMURO	46.39	1.7	8	29	-1	15	21	3				
TUAI	46.55	143.9	8	30	-1						11	41 PPP
ASAHIGAWA	46.83	358.5	8	34A	1						10	25
WELLINGTON	46.92	148.1	8	33	-1						11	44 PPP
RUMOE	47.03	357.7	8	37	2							
ABASHIRI	47.06	0.4	8	34	-1							
VLADIVOSTOK	47.41	348.0	8	39A	1	15	33	1			10	32 PP
ROXBURGH	47.58	155.9	8	38	-1							
GEBBIES PASS	47.64	151.9	8	38	-2						11	50 PPP
KUNMING	48.90	307.6	8	51A	1	15	57	4	9	8		
CHANGCHUN	49.76	342.4	8	56	0	16	7	2				
SIAN	49.77	321.5	8	57	1							
PEKING	50.03	332.2	8	58A	0	16	9	0	9	31		
Y.-SAKHLINSK	50.07	358.9	8	58A	-1						16	16 PS
CHENGTU	50.85	314.5	9	5A	0	16	21	1	9	22		
PORT BLAIR	53.02	287.1	9	42	21	16	50	0			11	39 PP
LANCHOW	54.13	319.9	9	30A	1	17	7	2	9	47		
CHITTAGONG	56.88	299.3	9	50K	1	17	47	5	10	2	11	51 PP
PETROPAVLOVK	57.42	10.5	9	53A	0						12	11 PP
SHILLONG	57.97	302.8	9	57A	0	18	1	5				
CALCUTTA	59.95	298.3	10	10	0	18	27	5			12	18 PP
LHASA	60.21	306.9	10	14A	2	18	29	4	10	30		
HONOLULU	61.75	63.8	10	24	1	18	46	1			23	3 SS
KIPAPA	61.85	63.7	10	25	2							
CHATRA	62.36	302.5	10	27A	0	18	56	3			12	45 PP
BOKARO	62.60	298.8	10	40A	12	19	11	15			13	8 PP
MAGADAN	62.84	3.9	10	30A	0						12	38 PP
VISHAKHAPTNM	63.27	291.6	10	36	3	19	12	8			12	55 PP
DUMONT	63.36	181.7	10	30	-3	19	0	-5				
HAWAII V.OB.	63.84	66.6	10	37	1	19	28	17				
IRKUTSK	64.64	334.3	10	41A	-1						19	27 PS
ESEN BULAK	64.87	325.6	10	44A	1						19	32
MADRAS	65.29	285.8	10	47	1	19	45	16			13	8 PP
YAKUTSK	65.99	352.7	10	50A	0	19	39	1				
WILKES	67.18	193.9	10	54A	-4	19	47	-5			20	8 SP
HYDERABAD	67.73	290.2	11	4A	3	19	59	0			13	32 PP
CAPE HALLETT	70.90	171.8	11	20	-1							
DEHRA DUN	71.06	303.5	11	22	0	20	40	2			14	4 PP
NEW DELHI	71.32	301.5	11	24A	0	20	43	2			14	8 PP
POONA	72.24	290.5	11	28A	-1	20	48	-4			14	11 PP
MIRNY	72.33	199.0	11	28	-2	20	48	-5			14	9 PP
BOMBAY	73.26	290.7	11	36	1	21	3	0			14	7 PP
LAHORE	74.46	303.8	11	42	0							
TIKSI	75.39	355.1	11	45	-2	21	27	0			14	36 PP
SCOTT BASE	75.53	175.1	11	46	-2						21	31
SEMIPALATNSK	76.11	323.8	11	51A	0							
FRUNSE	77.20	315.1	11	58A	1						15	3 PP
MARSAK DAM	77.30	305.7	11	59A	1	21	52	4			38	54 PKPPKP
KHOROG	78.10	309.2	12	3	1							
QUETTA	80.40	301.2	12	16	1	22	30	9	12	23	12	34 *SP
TASHKENT	80.67	312.6	12	16A	0	22	26	2			15	27 PP
MAWSON	83.59	202.4	12	29A	-2	22	47	-6			15	33 PP
COLLEGE	83.86	23.5	12	32	-1	22	57	1			15	57 PP
SOUTH POLE	86.77	180.0	12	46	-1				12	53		
SITKA	87.68	32.7	12	52	0	23	27	-6				
BYRD STATION	87.96	170.0	12	52	-1						27	30
ASHKABAD	88.48	308.0	12	57	1						23	27 SKKS
SVERDLOVSK	89.01	326.9	12	57K	-1						16	25 PP
SHIRAZ	92.81	299.4	13	14	-2						16	29 PKS
ALBERNI	93.26	41.0	13	19	1							
TEHERAN	93.93	305.4	13	21	0	24	35	6	17	15		
VICTORIA	94.18	41.8	13	22A	0							
UKIAH	94.25	51.2	14	27	65							
CALISTOGA	94.75	51.7	13	25A	0							
MOULD BAY	94.75	13.8	13	22	-3							
SEATTLE	94.93	42.6	13	23	-2						16	36
TANANARIVE	94.98	250.8	13	28	2						17	17 PP
BERKELEY	94.99	52.4	13	27K	1	24	7	-31	13	39	17	27 PP
LICK	95.49	53.0	13	28A	0							
MINERAL	95.50	49.9	13	29	1							
PRIEST	96.28	54.2	13	33K	1							
PENTICTON	96.66	40.9	13	33A	0							
RENO	96.89	50.7	13	35	1							
GORIS	97.92	309.3	13	38A	-1						17	41 PP

PASADENA	98.36	56.1	13	41	0	24	22	3	16	50 PP
TIFLIS	98.96	311.6	13	43	-1				31	59 SS
BANFF	99.13	38.8	13	43	-1					
EUREKA	99.86	50.7	13	48A	0				17	26
ALERT	100.00	3.4	13	46	-2					
HUNGRY HORSE	100.43	41.6	13	53K	3				17	55 PKP
APATITY	100.73	338.5	13	51A	-1	24	32	1	14 17	18 0 PP
BOULDER CITY	101.01	54.1	13	41	-12				17	10
RESOLUTE	101.05	13.4	13	53	0					
NORD	101.20	357.1	13	54	0				22	54
BUTTE	101.71	43.8	13	57	1					
MOSCOW	101.82	326.3	13	55A	-2				18	5 PP
DUGWAY	102.22	49.7	13	56	-2	24	42	4	18	12 PP
BOZEMAN	102.81	44.0	14	3	2	24	25	-16		
SALT LAKE C.	102.89	49.0	14	2	1				18	20 PP
SODANKYLA	103.24	339.3	14	1	-2				18	16 PP
GLEN CANYON	103.52	52.9	14	7	3					
PRICE	103.82	50.1	14	7	2					
KAJAANI	104.15	336.0	14	5	-2				18	26 PP
PULKOVO	104.53	331.4	14	9	0				21	57 PKS
TROMSOE	104.67	342.8	14	38	29					
TUCSON TELE.	104.70	57.6	14	19	10				18	30 PP
FLAMING GRGE	104.71	48.6	14	10	1					
KIRUNA	105.14	340.9	14	9	777	24	51	0	18	25 PP
SIMFEROPOL	106.25	315.9	14	14	777				18	42 PP
KSARA	106.77	304.2	14	20	777				18	47 PP
HELSINKI	106.88	332.8	14	19	777					
NURMIJARVI	106.88	333.2	18	15	777	24	39	-20	18	41 PP
UMEA	107.22	337.3	18	35	777	26	16	76	18	47 PP
JERUSALEM	107.59	302.2	14	30	777				18	57 PP
CHANGALANE	107.88	241.2							18	53 PP
ALBUQUERQUE	107.91	54.4	14	24	777					
UPPSALA	110.30	334.3	18	41	7	26	45	92	19	9 PP
SKALSTUGAN	110.31	339.1	18	41	7				29	49 PKKP
WARSAW	112.21	326.1	14	47	-231	25	24	3	19	24 PP
SCORESBY SD.	112.24	354.9	14	41	-237				19	23 PP
BULAWAYO	112.45	246.8	14	48	-230				18	44 PP
KARLSKRONA	113.15	331.5	14	49	-230				19	33 PP
KIMBERLEY	113.58	236.8	18	46	6					
BROKEN HILL	113.68	252.8	14	56	-225					
KRAKOW	113.76	324.3	14	57	-224				19	32 PP
SKALNATE PL.	113.94	323.3	18	43	2				19	37 PP
GOTEBORG	113.94	334.1	18	30	-11				19	36 PP
WICHITA MTS.	114.30	53.3	18	43	1	25	33	4	19	45 PP
SOFIA	114.37	315.8	18	46	4				19	43 PP
MANHATTEN	114.67	48.1	18	43	1					
TIMISOARA	114.70	319.6							19	46
RACIBORZ	114.75	324.8	18	49	6				19	40 PP
BERGEN	114.89	338.8							19	7
COPENHAGEN	114.89	332.1	14	55	-228					
LWIPO	114.92	266.0	18	38A	-5					
BUDAPEST	115.40	322.0	18	49	5	24	58	-36	19	7 PP
ATHENS	115.56	310.8							19	56 PP
BELGRADE	115.56	318.8	18	51	7				32	59
HURBANOVO	115.73	322.6	18	57	12				19	45 PP
LAWRENCE	115.73	48.0	18	46	1					
KALOCSA	115.82	321.0	18	55	10				29	15
SKOPJE	115.93	315.6							19	37
HERMANUS	115.98	229.1				25	46	10	29	52
DALLAS	116.21	54.9	18	47	2					
TULSA	116.21	51.4	18	46	1	25	43	6	19	48 PP
BRATISLAVA	116.26	323.3	18	47	1				19	51 PP
PRUHONICE	116.86	326.0	18	48	1				19	56 PP
PRAGUE	116.89	326.1	18	52	5				19	54 PP
TITOGRAD	117.27	316.8							20	3
FAYETTEVILLE	117.40	50.8	18	48	0				29	11
HALLE	117.47	328.4	18	46	-2				15	7 P
KASPERSKE H.	117.84	325.5	18	49	0				20	2 PP
JENA	117.98	328.0	19	0	11	25	31	-12	19	56 PP
ZAGREB	118.00	321.3	18	52	3					
HOUSTON	118.09	58.0							20	8
REYKJAVIK	118.38	353.0	19	5	15				20	7 PP
LJUBLJANA	118.80	322.1	18	50	0				20	11 PP
WITTEVEEN	119.32	331.8	18	53	2				20	23 PP
TARANTO	119.43	315.4							20	5 PP
TRIESTE	119.46	322.0	18	56	4	25	58	10	20	16 PP
ABERDEEN	119.88	339.4							20	17 PP
FELDBERG	120.02	328.6	18	57	4					

CHICAGO JSA.	120.05	42.5	18	52	-1						20	23	PP
HEIDELBERG	120.36	327.8	18	55	2						20	23	PP
STUTTGART	120.42	326.9	18	54	0						20	23	PP
DE BILT	120.48	331.8	19	0	6						20	27	PP
PADOVA	120.73	322.5				25	47	-5			20	17	PP
RAVENSBURG	120.79	325.8	18	58	4								
TERRE HAUTE	121.31	45.1									20	7	
STRASBOURG	121.35	327.4	18	59	4	28	3	128			20	29	PP
CHUR	121.35	324.9	18	59	4						27	9	
REGGIO CALA.	121.50	313.4	19	0	4						20	32	
DURHAM	121.51	337.4	18	59	3	26	6	11			20	30	PP
MESSINA	121.53	313.6	18	50	-6				19	2	20	31	PP
FLORENCE X.	121.94	321.1	15	56	-181	25	58	2			20	33	PP
PRATO	121.98	321.3									30	17	PS
DOURBES	122.05	330.3	18	58	1	25	58	1					
ROME	122.06	318.7	18	58	1						20	32	PP
BASLE	122.07	326.5	18	58	1						20	32	
PAVIA	122.48	323.5	19	1	3						29	43	PPS
CHIAVARI	122.85	322.5	18	52	-6	27	1	62			23	15	PPP
SCHEFFERVLLE	122.87	20.6	18	58	0								
BESANCON	123.11	327.0	19	1	2								
KEW	123.41	334.0	19	0	1						20	34	PP
ROSELEND	123.67	325.2	19	2	2						20	57	PP
LONDON ONT.	123.71	38.6	19	0	0								
PARIS	123.94	330.2	19	3	3						20	49	PP
CLEVELAND	124.29	40.4	19	4A	3						20	46	PP
MONACO	124.31	322.8	19	6	5						32	56	
GARCHY	124.64	328.5	19	3	1						32	8	
BANGUI	125.42	273.0	19	5	2						20	52	PP
CLERMONT-FD.	125.58	327.1	19	3	-1						20	58	PP
JERSEY	125.86	333.1									20	59	
SHAWINIGAN	126.39	30.8	19	5	0								
BREBEUF	126.64	32.3	19	6K	0						20	57	PP
PENNSYLVANIA	127.00	39.3	19	6	0								
BANDEIRA	127.87	248.4	19	12	4						21	12	PP
COLUMBIA	128.20	48.3	19	10	1						21	17	
WASHINGTON	128.55	40.9	19	10	1	25	24	-52			21	14	PP
GEORGETOWN	128.55	40.9	19	10	1						39	5	
CHAPEL HILL	128.75	45.2	19	10	0								
BAGNERES	128.94	326.2	19	11	1						21	11	PP
PALISADES	129.31	36.9	19	12	1	26	47	29			15	59	P
LUANDA	129.40	255.9	19	15A	4						21	25	PP
WESTON	129.94	33.9	19	13	1						21	26	
TORTOSA	130.18	323.7	19	28	16						22	43	PP
SANTA LUCIA	131.04	141.0	19	15	1				19	41	22	40	PP
HALIFAX	132.20	26.5	19	17	1								
ALICANTE	132.31	321.8	19	18	2	26	21	-5			21	45	PP
TOLEDO	133.42	325.8	19	19	0						21	52	PP
ALMERIA	134.48	321.5	19	23K	3	26	36	6			21	54	PP
SERRA PILAR	134.91	330.5	19	23A	2	26	33	2	19	36	22	3	PP
GRANADA	134.96	322.7	19	22A	1	26	27	-4			22	0	PP
COIMBRA	135.53	329.5	19	25K	3						22	2	PP
MALAGA	135.74	322.8	19	24A	1						22	3	PP
BALBOA HTS.	136.42	80.5	19	25	1								
LISBON	137.00	328.7	19	26	1						22	12	PP
ANTOFAGASTA	137.15	130.5	19	19	-6						19	41	
HUANCAYO	138.13	112.0	19	31	4						22	41	
BENI ABBES	138.26	313.5	19	18	-9						22	26	PP
AREQUIPA	139.90	120.3	19	27	-3								
GALERAZAMBA	140.43	77.1	19	12	-19						23	1	PP
CHINCHINA	140.53	86.2	19	25	-7						22	58	PP
BOGOTA	142.08	86.7	19	29	-5						22	57	PP
LA PAZ	142.74	122.8	19	35	0								
PONTA DELGDA	144.38	345.8	19	38A	0						23	1	PP
SAN JUAN	146.97	60.7	19	44	1				20	58	22	53	SKP
CARACAS	148.56	75.2	19	50A	5						23	39	SKP
ST. KITTS	150.34	60.0	19	51	3						23	4	
ANTIGUA	151.19	59.6	19	51	2						23	7	
ST. CLAUDE	151.78	61.6	20	4	14								
FORT FRANCE	152.78	63.7	20	3	11								
GRENADA	153.14	69.6	19	51	-1								
ST. VINCENT	153.22	66.9	19	53	1								
TRINIDAD	153.83	72.4	19	56	3						23	6	

JULY 30 20.H 18.M 52.S EPICENTRE 5.23 -76.34 DEPTH= 59.KM

A= 0.23522 B=-0.96772 C= 0.09052 D=-0.9717 E=-0.2362
G= 0.0214 H=-0.0880 K=-0.9959 HT= 7.0

DEPTH OF FOCUS= 0.004R

SE= 2.69

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
CHINCHINA	0.76	109.7	0 18	2	0 25	-4		
BOGOTA	2.34	104.9	0 36	-1	1 3	-2		0 40 P*
BALBOA HTS.	4.90	319.4	1 13	0				
GALERAZAMBA	5.62	10.8	1 26	3	2 28	1		
QUITO	5.83	201.8	1 28	2	2 15	-17		
CARACAS	10.69	60.1	2 30A	-3	4 18	-14		
SANTIAGO MA.	14.51	305.3	3 29	6				
SAN SALVADOR	15.21	304.4	3 34	2				
TRINIDAD	15.74	69.1	3 38	-1	6 36	4		
GRENADA	15.95	63.9	3 39	-3	6 37	0		
SAN JUAN	16.45	36.5	3 46K	-2			6 2	
ST. VINCENT	16.83	61.0	3 48	-5	7 8	11		
HUANCAYO	17.19	176.7	3 57	-1	7 11	6		
FORT FRANCE	17.67	56.6	4 5	1	7 15	-1		
ST. CLAUDE	17.93	52.1	4 8	1	7 14	-8		
ST. KITTS	17.95	46.8	4 6	-1	7 31	9		
BARBADOS	18.28	63.5	4 10	-1				
ANTIGUA	18.48	49.0	4 10	-3				
COLUMBIA	28.96	351.9	5 56	0	10 42	1		
ANTOFAGASTA	29.33	168.9	5 56	-3	10 48	1		12 39 SSS
HOUSTON	30.29	325.7	6 13	5				
CHAPEL HILL	30.64	355.7	6 13	2				
COPIAPO	32.90	170.2	6 31	0	11 47	4		
DALLAS	33.45	327.8	6 34	-1				
WASHINGTON	33.52	359.0	6 47A	11	11 54	1		
GEORGETOWN	33.52	359.0	6 39	3	11 56	3		
PHILADELPHIA	34.58	1.6	6 48	3				
FAYETTEVILLE	34.82	334.2	6 44	-3	12 12	-1		
BLOOMINGTON	35.04	346.2	6 50	1				
TULSA	35.39	332.2	6 49	-3	12 22	0		
TERRE HAUTE	35.41	345.2	6 38	-14				7 58
PENNSYLVANIA	35.44	358.0	6 33	-19				
ROLLA	35.48	338.6	6 51K	-2	12 11	-12		
FORDHAM	35.53	3.2	7 58	65	13 22	58		
ST. LOUIS 1	35.57	341.1	6 51	-3				
PALISADES	35.69	3.2	6 57K	2	12 26	0		
FLORISSANT	35.76	341.1	6 54	-1				
WICHITA MTS.	35.85	327.8	6 54	-2	12 30	1		13 1 SCP
CLEVELAND	36.39	353.4	7 4K	4	12 36	-1		
LUBBOCK	36.85	323.2	7 6	2				
CHICAGO JSA.	37.88	346.2	7 13	0				
LONDON ONT.	37.90	354.2	7 12	-1				
MANHATTEN	38.46	334.4	7 16	-2	12 53	-16		
SANTA LUCIA	38.83	172.4	7 20K	-1	14 4	50		9 2 PP
BREBEUF	40.18	3.0	7 31A	-1	13 36	2		9 32 PP
ALBUQUERQUE	40.60	320.7	7 35	-1				
HALIFAX	40.79	13.9	7 39	2				
SHAWINIGAN	41.28	3.7	7 41	0				
TUCSON TELE.	41.93	314.3	7 48	2				
CONCEPCION	42.03	174.9	7 46	-1	13 59	-3		
GLEN CANYON	45.13	319.3	8 12	0				
PRICE	46.23	322.7	8 22K	1				10 40 PP
FLAMING GRGE	46.25	325.1	8 20	-1				
BOULDER CITY	46.75	316.1	8 24	-1				
SALT LAKE C.	47.58	323.3	8 31	-1	15 11	-11		
DUGWAY	47.81	322.1	8 32K	-1				
PASADENA	48.24	312.1	8 37	0	16 23	52		
EUREKA	49.39	319.4	8 45K	-1				
SCHEFFERVLLE	50.04	7.2	8 48	-3				
BOZEMAN	50.31	328.7	8 52	-1	15 54	-6		
PRIEST	50.96	313.3	8 57A	-1				
BUTTE	51.34	328.2	8 58	-3				
RENO	51.96	317.5	9 4K	-1				
LICK	52.20	314.2	9 6	-1				
BERKELEY	52.87	314.5	9 12K	0	16 36	1		11 53 PP
CALISTOGA	53.44	315.2	9 15	-1				
MINERAL	53.54	317.5	9 15	0				
HUNGRY HORSE	53.62	329.6	9 17A	-1	16 29	-16		
UKIAH	54.10	315.5	10 25	64				13 8

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ANGRA DO HO.	55.47	45.9	9	39	8	17	19	9			18	5
BANFF	56.21	331.4	9	33	-3							
PONTA DELGDA	56.24	47.5	9	38A	1	17	25	5	10	2	11	36 PP
PENTICTON	57.12	327.7	9	40	-3							
SEATTLE	57.67	324.9	9	49	2	17	30	-9				
VICTORIA	58.77	325.3	9	53A	-1							
M.BOUR	59.06	76.4	9	41	-15	17	58	1				
ALBERNI	59.95	325.5	10	2	0							
LISBON	69.00	50.6	11	2A	1	20	0	0			14	10 PP
SITKA	69.13	329.9	11	3	1	20	4	2				
COIMBRA	69.81	49.1	11	8A	2	20	9	-1	11	18	20	58 SKS
SERRA PILAR	69.86	48.1	10	55	-11	20	46	36	11	8	13	27 PP
RESOLUTE	70.23	354.8	11	5	-4							
REYKJAVIK	70.40	22.3	11	11A	1	20	22	6	11	36		
G. G. VIDELA	70.58	173.9	11	13	2	20	14	-5			20	44 SPP
SIDA	71.72	23.4	11	16	-2						12	5
MALAGA	72.42	53.3	11	24	2	20	40	0			14	0 PP
TOLEDO	73.08	50.0	11	23	-3	20	48	1	12	2	25	40 SS
GRANADA	73.11	52.9	11	29K	3	20	48	0			14	10 PP
BENI ABBES	73.70	60.3	11	25	-4	20	53	-1			23	46
SCORESBY SD.	73.73	16.5	11	30	1	20	54	0				
ALMERIA	73.98	53.3	11	32A	1	20	58	1			14	10 PP
MOULD BAY	74.79	350.3	11	32	-4							
ALICANTE	75.69	51.9	11	42	1	21	12	-4			21	58 SKS
JERSEY	75.77	40.7	11	41A	0	21	15	-2				
BAGNERES	76.58	47.1	11	43	-3							
TORTOSA	76.64	49.4	11	48	2	21	28	1				
FOLINIERE	76.77	41.2	11	44	-3							
DURHAM	76.97	35.0	11	49K	1	21	28	-2	12	31	22	8 SKS
ABERDEEN	77.10	32.5	11	48A	-1	21	28	-4			22	24 PS
LOME	77.12	84.9	11	50	1							
KEW	77.22	38.5	11	50A	1	21	31	-2			25	33 SS
ALERT	77.46	1.9	11	48	-3							
COLLEGE	77.47	335.5	11	47	-4	21	32	-4				
HAWAII V.OB.	77.86	288.7	11	51	-2							
PARIS	78.73	41.4	11	56	-2						15	12 PP
CLERMONT-FD.	78.92	44.5	12	0A	1	21	52	1				
GARCHY	78.99	43.0	11	56	-3	21	50	-2			22	25 SP
DOURBES	80.20	40.2	12	3	-3	22	3	-2				
KIPAPA	80.38	290.8	12	7	0							
HONOLULU	80.46	290.6	12	8	1						12	39
DE BILT	80.69	38.2	12	10A	2							
BESANCON	80.97	43.1	12	10	0							
BERGEN	81.35	29.8	12	14	2	22	15	-1			27	25 SS
ROSELEND	81.37	44.7	12	11	-1				12	56		
WITTEVEEN	81.63	37.5	12	12	-1							
ISOLA	81.64	46.3	12	15	2						22	19
MONACO	81.91	46.7	12	15	0							
BASLE	82.06	42.9	12	16A	1	22	24	0				
STRASBOURG	82.21	41.8	12	16	0	22	24	-1	12	57	15	31 PP
FELDBERG	82.68	40.2	12	20	1							
CUGLIERI	82.77	50.3									13	38
HEIDELBERG	82.84	41.0	12	18	-1							
EBINGEN	83.01	42.2	12	21	1							
TUBINGEN	83.07	41.9	12	22A	1							
PAVIA	83.16	45.2	12	22A	1						15	34 PP
STUTTGART	83.21	41.6	12	18	-3	22	31	-4			23	30 PS
CHIAVARI	83.27	46.1	12	24	2	22	33	-3			15	38 PP
CHUR	83.39	43.6	12	24	2	22	38	1				
RAVENSBURG	83.44	42.6	12	24	2							
PRATO	84.57	46.5	12	29	1	22	46	-3				
JENA	84.66	39.4	12	26	-3	22	48	-2			15	50 PP
FLORENCE X.	84.68	46.6	12	35A	6	22	55	5	13	8	23	47 PS
BOLOGNA	84.71	45.9	12	29	0						34	8
GOTEBORG	84.72	32.6	12	28	-1				12	58		
SKALSTUGAN	84.74	26.7	12	27	-2				12	58	38	39 PKPPKP
HALLE	84.88	38.9	12	24	-6	22	50	-2				
COPENHAGEN	85.04	34.6	12	32A	2	22	44	-9				
PADOVA	85.06	45.0	12	33A	2	22	52	-2			15	55 PP
CHEB	85.21	40.3	12	32	1	22	49	-6				
COLLMBERG	85.54	39.0	12	35	2	22	59	1				
ROME	85.67	48.5	12	36A	2	22	54	-6	13	8	23	46 PS
KASPERSKE H.	86.03	41.2	12	33	-2						15	57 PP
TRIESTE	86.36	44.7	12	39A	2	22	58	-8			16	0 PP
PRAGUE	86.52	40.2	12	41A	3	23	6	-2			16	6 PP
PRUHONICE	86.61	40.3	12	37	-1	23	1	-8			16	5 PP
KARLSKRONA	86.77	34.1	12	38	-1				13	9		
LJUBLJANA	86.87	44.2	12	38	-1	22	53	-18			15	57 PP

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TROMSOE	86.98	20.4	12	47	7						
UPPSALA	87.52	30.3	12	40A	-3	23	10	-7	13 11	22	58 SKS
KIRUNA	87.75	22.2	12	42A	-2	23	19	0	13 12	23	1 SKS
BYRD STATION	87.85	186.9	12	42	-2						
ZAGREB	87.91	44.4	12	47	3	23	21	0			
VIENNA-H.	87.94	41.9	12	46A	1	23	22	1		16	6 PP
UMEA	88.25	26.2	12	44	-2	23	21	-3	13 7	16	24 PP
MESSINA	88.29	52.0	12	45	-1	23	24	0	12 56	16	14 PP
REGGIO CALA.	88.37	52.1	12	54	7					23	23
BRATISLAVA	88.44	41.9	12	45	-2	23	24	-2		16	8 PP
RACIBORZ	88.94	40.0	12	50	1	23	33	2		16	26 PP
HURBANOVO	89.21	42.2	12	56	5	23	36	3	13 36	16	50 PP
TARANTO	89.37	49.6	13	4	13					23	24 PS
BUDAPEST	89.80	42.5	12	53	0	23	34	-4		16	29 PP
SARAJEVO	89.85	46.1	12	55	1						
KALOCSA	89.90	43.4	12	55	1	23	35	-4		21	56
KRAKOW	90.05	39.9	12	57	2	23	38	-3		16	31 PP
SODANKYLA	90.17	22.2	12	54	-1	23	16	-26		24	18 PS
LUANDA	90.37	98.8	12	58A	2	23	46	3		16	32 PP
SKALNATE PL.	90.38	40.7	12	55	-1	23	46	2		16	35 PP
WARSAW	90.41	37.6	12	58A	2	23	45	1		13	1 PCP
TITOGRAD	90.63	47.5	12	59	2	23	47	1		16	36 PP
NURMIJARVI	90.88	29.1	12	56	-2	23	18	-30		16	36 PP
BANDEIRA	90.99	104.8	12	54	-5	23	48	-1	13 7	24	57 SP
HELSINKI	91.10	29.4	12	58	-1						
BELGRADE	91.16	45.0	13	3A	3	23	24	-26		16	44 PP
KAJAANI	91.43	25.2	12	59	-2						
TIMISOARA	91.55	44.0	12	56	-6					16	36 PP
SKOPJE	92.30	47.7	13	8	3	23	28	-33		16	46 PP
APATITY	92.62	21.2	13	7A	1	23	55	-8	13 48	16	53 PP
LWOW	92.70	39.6	13	10	3	24	4	0		16	47 PP
SOFIA	93.56	46.7	13	12	1	23	36	-36		16	59 PP
PULKOVO	93.81	29.1	13	13A	1						
BANGUI	94.53	85.2	13	12	-3	24	18	-2			
ATHENS	94.70	51.3	13	18A	2	23	51	-30		24	23
SOUTH POLE	95.19	180.0	13	16	-2	23	44	-3	13 20		
HERMANUS	97.52	123.9	13	27	-2	24	0	0		17	26 PP
MOSCOW	98.87	31.5	13	36	1	24	4	-3		26	54
SIMFEROPOL	100.57	42.6	13	43A	0	24	11	-4		17	46 PP
SCOTT BASE	100.60	191.1	13	43	0					17	58
TIKSI	101.53	352.1	13	46	-1					14	23
CAPE HALLETT	101.96	196.7	13	53	4						
KIMBERLEY	102.24	118.2	13	52	2						
KSARA	105.27	53.0	14	7	777	24	41	4		18	26 PP
LWIRO	105.27	90.9	14	5	777						
JERUSALEM	105.32	55.2	14	7	777					18	24 PP
BROKEN HILL	105.61	103.5	14	6	777						
BULAWAYO	105.80	109.4	14	9	777						
PETROPAVLOVK	105.85	329.0				24	40	1		33	26 SS
KARAPIRO	107.48	232.0	18	46	777						
CHANGALANE	108.90	115.9	14	26	777	24	50	-3		18	48 PP
SVERDLOVSK	108.94	23.4	14	23	777						
TIFLIS	109.00	42.7								18	59 PP
YAKUTSK	110.01	347.3	14	25	-240					28	6 PS
GORIS	111.01	44.2	14	33	-234	24	50	-11		19	11 PP
MAWSON	111.88	164.3	14	37	-231					18	0 PP
TEHERAN	116.30	45.9	19	44	67					15	51 P
Y.-SAKHLINSK	117.59	330.9	18	38	-1	25	24	-3			
MIRNY	118.34	175.2	18	41	0	25	28	-1		19	56 PP
WILKES	118.81	183.2	18	32	-10	25	29	-2		20	2 PP
ASHKABAD	119.88	40.4	18	45	1					20	18 PP
SHIRAZ	119.96	51.5								19	20
IRKUTSK	122.72	359.5	18	51	2						
TANANARIVE	123.70	109.2	18	57	6					20	38 PP
TASHKENT	124.02	30.9	18	53	1					20	38 PP
FRUNSE	125.39	26.0	18	57	3					20	53
VLADIVOSTOK	125.51	334.8	19	3	8					25	16
DUZHANBE	125.74	33.5	19	1	6						
TUKUBASAN	126.49	323.3	18	55A	-2					20	27 PP
ULAN-BATOR	127.00	357.3	19	0	2						
MATUSIRO	127.37	324.9	18	57A	-1					21	32 PP
CHANGCHUN	127.41	340.4	18	59	1					21	40 PP
RIVERVIEW	127.62	230.8	19	1	2					21	4 PP
KHOROG	128.03	32.5	19	2	2						
ESEN BULAK	128.18	6.5	19	2	2						
BRISBANE	128.39	239.1	19	1	1	25	59	-2			
CANBERRA	128.65	228.1	19	0	-1					22	58 PPP
ABUYAMA	130.06	325.4	19	2K	-1						

QUETTA	130.24	42.7	19	7	3					22	18	PKS
WARSAK DAM	130.57	35.5	19	3	-1							
RABAUL	131.65	269.0	19	8	2					22	18	PP
PEKING	133.52	346.7	19	9	-1							
LAHORE	133.96	35.5	19	0	-11							
CHARTERS TS.	136.05	246.4	19	8	-7					33	0	
ADELAIDE	136.15	222.9	19	18	3					22	16	PP
PORT MORESBY	136.69	261.9	19	11	-5							
DEHRA DUN	136.98	33.2	19	8	-8					32	20	
NEW DELHI	137.82	35.7	19	12K	-6					22	7	PP
LANCHOW	138.94	359.8	19	21	1					22	34	PP
ZO-SE	140.19	336.2	19	23	1					22	50	PP
SIAN	140.42	353.2	19	21	-2					22	56	PP
BOMBAY	141.30	50.9	19	24	0					22	28	PP
POONA	142.30	50.5	19	23A	-3					22	39	PP
LHASA	143.27	18.5	19	26	-2					23	10	PP
CHENGTU	144.31	359.5	19	28	-1					23	16	PP
ILAN	145.37	330.2	19	33	2							
HWALIEN	146.11	329.6	19	48	15							
BOKARO	146.27	30.4	19	50	17					24	8	
TAICHUNG	146.42	331.1	19	52	19							
HYDERABAD	146.43	47.3	19	15	-18							
ALISHAN	146.89	330.3	19	37	3							
TOCKLAI	147.07	14.7	19	40	6							
TAWU	147.82	329.0	19	41	6							
HENGCHUN	148.18	328.9	20	8	32							
CALCUTTA	148.62	27.9	19	55	18							
VISHAKHAPTNM	149.60	41.0	19	54	16					23	18	
KUNMING	149.82	1.7	19	40	2					23	58	PP
CHITTAGONG	150.23	22.5	19	46	7			20	17	23	33	PP
CANTON	150.31	341.8	19	44	5							
MADRAS	150.47	52.0	19	56	17					23	24	PP
HONG KONG	150.77	339.8	19	42	2					21	52	
MUNDARING	150.92	202.3	19	39	-1							
PERTH	151.08	201.7	19	48	8					23	5	PP
COLOMBO	153.37	63.3	19	33A	-11					30	27	
PORT BLAIR	159.99	32.9	19	50	-2					21	46	PP
MEDAN	169.93	29.7	20	1K	0					26	9	
LEMBANG	175.75	247.8	20	5	2							
DJAKARTA	176.71	253.2	20	0	-3					24	32	

JULY 31 2.H 19.M 6.S EPICENTRE -3.27 143.36 DEPTH= 0.KM

A=-0.80116 B= 0.59576 C=-0.05664 D= 0.5967 E= 0.8025
G= 0.0455 H=-0.0338 K=-0.9984 HT= 7.1

SE= 2.42

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PORT MORESBY	7.16	148.5	1	44	-4	3	22	11				
RABAUL	8.83	96.3	2	19	7							
CHARTERS TS.	16.96	170.6	4	0	0	7	41	33				
BRISBANE	25.62	160.3	5	32	-1	10	30	31				
RIVERVIEW	31.26	167.5									8	32
ADELAIDE	31.84	187.2	6	26	-3							
CANBERRA	32.32	171.4	6	31A	-2							
LEMBANG	35.77	262.9	7	8	5							
HONG KONG	38.21	313.1	7	26	3	13	17	0				
MATUSIRO	39.89	353.5	7	33A	-4						8	3
ZO-SE	40.19	329.9	7	40	0							
MEDAN	45.17	278.3	8	17	-3							
TUAI	46.86	143.5	8	31	-3							
VLADIVOSTOK	47.32	348.6	8	36A	-1	15	33	2				
KUNMING	48.47	308.0	8	49	3				9	13		
SIAN	49.44	321.9	8	55	1				9	23		
CHANGCHUN	49.62	342.9	8	53	-2	16	0	-3	9	23	10	48 PP
PEKING	49.79	332.6	8	56A	0	16	47	41	9	21	9	36 *SP
CHENGTU	50.47	314.9	9	3A	2							
LANCHOW	53.79	320.3	9	28A	2	17	5	5	9	53		
SHILLONG	57.51	303.1	9	55A	2							
PETROPAVLOVK	57.54	10.9	9	50A	-4	17	48	-2				
LHASA	59.78	307.1	10	11A	2	18	26	6				
ULAN-BATOR	60.12	332.5	10	10A	-1	18	27	3				
MAGADAN	62.90	4.2	10	27	-3							
DUMONT	63.33	181.5	10	31	-2							
ESEN BULAK	64.58	325.8	10	43A	2							

YAKUTSK	65.94	353.0	10	47A	-3	19	36	-1						
WILKES	67.02	193.8	10	55	-2									
POONA	71.72	290.6	11	28K	2									
MIRNY	72.13	198.9	11	28	0									
LAHORE	74.01	304.0	11	40	1									
ALMATA-2	75.05	316.3	11	47	2									
TIKSI	75.36	355.3	11	43	-4									
SCOTT BASE	75.55	175.0	11	47	-1									
SEMIPALATNSK	75.79	323.9	11	49	0									
WARSAK DAM	76.86	305.9	11	57A	2									
ANDIJAN	77.87	312.7	12	3	2	22	1	7						
QUETTA	79.94	301.3	12	15	3									
DUZHANBE	80.05	309.9	12	14A	1	22	22	5						
TASHKENT	80.27	312.7	12	16A	2	22	22	3						
MAWSON	83.36	202.4	12	29A	-1									
COLLEGE	84.10	23.6	12	30	-4									
SOUTH POLE	86.75	180.0	12	45	-2									
BYRD STATION	88.04	170.0	12	51	-2								13	49
VANNOVSKAYA	88.25	308.0	12	55	1									
SVERDLOVSK	88.73	326.9	12	54K	-3									
TEHERAN	93.49	305.5	13	16	-3	24	33	8	17	17				
GORIS	97.50	309.2	13	34	-3									
WOODY	98.21	54.6	13	36	-4									
EUREKA	100.30	50.6	13	46	-4									
APATITY	100.55	338.5	13	48	-3									
MOSCOW	101.53	326.2	13	54	-1									
SODANKYLA	103.06	339.2	13	59	-3									
KIRUNA	104.98	340.7	14	7	-3									
UZHGOROD	112.59	322.0											19	23 PP
GOTEBORG	113.71	333.9	18	22	-18									
WICHITA MTS.	114.76	53.2	18	42	0								19	36 PP
PRUHONICE	116.57	325.8											19	56 PP
KASPERSKE H.	117.54	325.3	18	46	-2								19	58
JENA	117.70	327.8											19	58 PP
STUTTGART	120.13	326.7	18	53	0									
BANGUI	124.87	273.0	19	3	1								21	6 *PPP
BREBEUF	126.95	32.0	19	4	-2									
HUANCAYO	138.64	112.3	19	30	2									
CHINCHINA	141.08	86.2	19	32	0									
BOGOTA	142.63	86.7	19	31	-4									
SAN JUAN	147.46	60.3	19	44	1									
CARACAS	149.10	75.0	19	48A	2								23	15 PP

JULY 31 5.H 9.M 26.S EPICENTRE 32.40 131.64 DEPTH= 89.KM

A=-0.56203 B= 0.63222 C= 0.53331 D= 0.7474 E= 0.6644
G=-0.3543 H= 0.3986 K=-0.8459 HT= 1.0

DEPTH OF FOCUS= 0.009R

SE= 4.97

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S
NOBOEKA	0.18	14.6	0	4	-10	0	13	-11				
MIYAZAKI	0.52	200.8	0	10A	-6	0	27	-2				
ASOSAN	0.69	316.1	0	14	-3	0	33	2				
OOITA	0.82	359.1	0	13A	-5	0	30	-3				
KUMAMOTO	0.89	297.9	0	18A	-1	0	40	6				
UWAZIMA	1.13	42.8	0	7	-14	0	17	-21				
ASHIZURI	1.19	74.3	0	2K	-20	0	11	-28				
UNZENDAKE	1.21	285.9	0	22	-1	0	45	5				
KAGOSIMA	1.24	228.3	0	25K	2	0	54	14				
SAGA	1.41	307.2	0	23	-2	0	56	12				
NAGASAKI	1.52	282.8	0	26A	0	0	59	13				
HUKUOKA	1.58	318.3	0	27A	0	0	59	11				
SIMONOSEKI	1.65	339.2	0	26A	-2	0	51	2				
MATUYAMA	1.72	33.5	0	16A	-13	0	34	-17				
KOTI	1.96	53.8	0	15K	-17	0	32	-24				
HIROSIMA	2.07	18.5	0	23A	-11	0	47	-12				
YAKUSIMA	2.18	206.8	0	38	3	1	11	10				
MUROTO	2.30	67.8	0	22	-15	0	44	-20				
HUKUE	2.39	277.8	0	45	7	1	25	19				
TSURUGISAN	2.46	53.5	0	34	-5	1	0	-8				
HAMADA	2.52	8.2	0	30A	-10	0	57	-13				
ITUHARA	2.66	312.9	0	41	-1	1	24	11				
TAKAMATU	2.78	45.9	0	33	-10	1	2	-14				

OKAYAMA	2.96	39.4	0	38K	-8	1	11	-10				
TOKUSIMA	2.97	55.3	0	43	-3	1	0	-21				
HIMEJI	3.12	47.1	0	48	0	1	25	1				
MATSUE	3.26	21.0	0	43	-7	1	24	-4				
SUMOTO	3.35	53.9	0	46A	-5	1	18	-12				
WAKAYAMA	3.47	57.4	0	46	-7	1	20	-13				
SIOMISAKI	3.63	72.2	0	42	-13	1	24	-13				
KOBE	3.73	51.6	0	54	-2	1	31	-9				
TOTTORI	3.75	33.6	0	48	-9	1	32	-8				
OSAKA	3.95	54.4	0	58	-1	1	37	-8				
SAIGO	4.04	19.9	1	0	-1	1	52	5				
TOYOOKA	4.09	39.4	0	57	-4	1	50	2				
ABUYAMA	4.10	52.1	0	45A	-17							
OWASE	4.17	65.3	0	48	-15	1	58	8				
NARA	4.17	55.9	1	1	-2	1	50	-1				
KYOTO	4.29	51.5	0	48	-16	1	29	-25				
MAIZURU	4.37	44.6	1	6	1	1	48	-7				
TU	4.68	59.4	1	15	6	2	9	6				
KAMEYAMA	4.71	57.5	1	1	-9	1	52	-12				
HIKONE	4.79	52.1	0	57	-14	1	55	-11				
TSURUGA	4.90	47.5	0	59	-14	2	11	2				
GIHU	5.21	53.6	1	3	-14	2	21	5				
NAGOYA	5.23	56.7	0	58	-19	1	55	-22			2	24
HUKUI	5.26	45.0	1	9	-9	2	3	-14			2	23
HAMAMATU	5.58	63.9	1	19	-3	2	36	11				
KANAZAWA	5.84	43.8	2	16	51	2	45	13				
OMAESAKI	5.92	66.5	2	4	38							
TAKAYAMA	5.96	49.7	2	16	49							
IIDA	6.01	57.2	1	12	-16	2	40	4				
SHIZUOKA	6.19	63.8									2	22
MATUMOTO	6.49	52.1	1	35	1	3	4	16				
WAZIMA	6.58	39.6	2	13	37	3	10	20				
KOHU	6.61	58.6	1	33	-3	3	18	27				
MISIMA	6.67	64.0	1	47	10	3	20	28				
HUNATU	6.68	60.5	2	39	62	3	11	19				
AJIRO	6.75	65.0	1	21	-17	2	52	-2				
MATUSIRO	6.82	51.0	1	23K	-16	2	39	-17				
OSIMA	6.88	67.8									3	24
NAGANO	6.89	50.0	1	41	1	3	14	17				
OIWAKE	6.93	53.7	1	29	-12	3	18	20				
TITIBU	7.12	57.9	1	45	2	3	21	18			8	49
MERA	7.28	67.6	2	8	23							
YOKOHAMA	7.31	63.4									3	15
MAEBASI	7.32	55.0	2	29	43	3	30	22				
KUMAGAYA	7.42	57.6	1	47	0	3	32	22				
TOKYO C.M.O.	7.48	61.9									2	46
AIKAWA	7.79	42.2	1	50	-2							
UTUNOMIYA	7.96	56.4	3	16	81	3	53	29				
TUKUBASAN	7.97	59.2	1	39	-16	3	25	1				
KAKIOKA	8.03	59.3	1	44	-12	3	52	27				
NIIGATA	8.19	45.7									3	54
MITO	8.31	59.1	1	48	-11	3	53	21				
SHIRAKAWA	8.48	54.0	1	51	-11							
ONAHAMA	8.87	56.7									3	27
HUKUSIMA	8.99	51.2	1	58	-11							
ZO-SE	9.00	264.5	2	10	1							
YAMAGATA	9.20	48.2	2	1	-10						4	28
SENDAI	9.56	49.7	1	54	-22						4	45
AKITA	10.01	40.8									3	6
MIZUSAWA	10.22	46.3	2	32	7							
ISIGAKIZIMA	10.39	221.1									5	20
VLADIVOSTOK	10.70	1.0	2	25A	-7							
CHANGCHUN	12.44	338.3	2	52	-3							
PEKING	14.61	305.7	3	25	2	6	36	33				
SIAN	19.07	281.7	4	26	8							
LANCHOW	23.24	286.7	5	2A	2							
CHENGTU	23.59	273.2	5	5A	2							
ULAN-BATOR	24.30	316.8	5	8A	-2							
PETROPAVLOVK	28.32	35.3	5	42	-5							
LHASA	34.76	276.4	6	48	5							
TIKSI	39.31	358.6	7	17K	-5							
TANGERANG	45.15	216.4	8	25	16						9	35
FRUNSE	45.57	300.2	8	14A	2							
LAHORE	48.10	285.1	8	32	0							
WARSAK DAM	49.66	289.1	8	46	2							
SVERDLOVSK	53.36	319.6	9	10K	-2							
CHARTERS TS.	54.04	163.0	9	14	-3							
COLLEGE	57.21	30.1	9	36	-4							

MOULD BAY	63.15	14.7	10	15	-5						
APATITY	63.51	334.9	10	19A	-4						
TEHERAN	64.74	297.6	10	31	0	19	16	13			
ALERT	65.13	2.0	10	31	-2						
SODANKYLA	65.98	335.8	10	36K	-3						
KAJAANI	67.07	332.4	10	43	-3						
TROMSOE	67.34	339.5	10	44	-3						
KIRUNA	67.84	337.5	10	48	-2						
RESOLUTE	68.94	11.9	10	54K	-3						
NURMIJARVI	70.05	329.8	11	2K	-2						
UMEA	70.06	333.9	11	2A	-2						
HELSINKI	70.09	329.4	11	1	-3						
SKALSTUGAN	73.06	335.9	11	19A	-3						
UPPSALA	73.34	331.2	11	21	-3						
SCORESBY SD.	75.66	351.1	11	35	-2	21	19	8			
KARLSKRONA	76.45	328.9	11	37	-4						
PENTICTON	76.97	39.5	11	41K	-3						
GOTEBORG	76.99	331.4	11	42	-2						
COPENHAGEN	78.12	329.6	11	49A	-2						
JERUSALEM	78.52	300.3	11	54	1						
HUNGRY HORSE	80.51	38.0	12	2	-2					12	27
PRUHONICE	80.87	324.4	12	5A	0					12	32
KARAPIRO	81.05	146.3	12	8	2						
JENA	81.67	326.4	12	8	-2						
KASPERSKE H.	81.91	324.2	12	10	-1						
LJUBLJANA	83.44	321.4	12	18A	-1						
STUTTGART	84.24	325.8	12	22	-1						
EUREKA	84.93	45.9	12	24	-2						
STRASBOURG	85.08	326.4	12	25	-2						
WOODY	85.41	50.3	12	25	-3						
DUGWAY	86.37	43.8	12	33K	0						
FLAMING GRGE	87.85	41.6	12	37	-3						
GARCHY	88.19	327.8	12	41	-1						
WICHITA MTS.	98.25	39.8	13	26	-2						
BYRD STATION	124.95	168.4	18	48	-2					33	0

JULY 31 5.H 13.M 8.S EPICENTRE 18.78 120.88 DEPTH= 54.KM

A=-0.48627 B= 0.81308 C= 0.32005 D= 0.8582 E= 0.5133
G=-0.1643 H= 0.2747 K=-0.9474 HT= 5.0

DEPTH OF FOCUS= 0.003R

SE= 2.61

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
HENGCHUN	3.20	357.8	0	49	-1	1	24	-3					
TAWU	3.55	0.3	0	49	-5	1	29	-7					
KAOHSIUNG	3.86	351.6	1	26	27								
MANILA	4.10	177.3	1	38	36	2	28	39					
TAINAN	4.24	351.7	1	6	2								
HSINKONG	4.32	6.0	1	6	1								
YUSHAN	4.67	0.8	1	9	-1	2	0	-4					
ALISHAN	4.71	359.1	1	12	1	2	1	-4					
HWALIEN	5.21	7.5	1	19	1	2	0	-17					
TAICHUNG	5.34	358.0	1	21	1								
TAIPEI	6.24	5.3	1	40	8	2	37	-6					
HONG KONG	7.19	300.3	1	40	-5	3	20	14					
CANTON	8.25	302.6	1	55K	-5								
NHATRANG	13.00	241.5	3	2	-2								
KUNMING	17.96	293.8	4	7K	-1	7	25	2					
SIAN	18.73	327.7	4	18K	1	7	50	10					
CHENGTU	19.33	310.9	4	23K	-1	7	54	0					
PEKING	21.56	350.1	4	47K	0	8	44	6					
LANCHOW	22.85	322.3	5	1K	1	9	6	5					
MATUSIRO	23.35	37.2	5	3A	-2	9	21	11					
TUKUBASAN	24.26	40.4	5	9A	-4								
VLADIVOSTOK	25.99	18.6	5	29	-1								
SHILLONG	27.66	289.4	5	35A	-10								
LHASA	29.20	297.4	6	0K	1	10	52	6			16	38	SCS
CALCUTTA	30.62	282.6	7	15	64						11	7	
CHATRA	32.02	290.7	6	48K	24								
BOKARO	33.01	285.0	6	32	0						7	50	
Y.-SAKHLINSK	33.37	27.6	6	34A	-2								
IRKUTSK	35.85	342.6	6	57	0								
POONA	44.46	277.6	8	8K	0						9	57	

PETROPAVLOVK	44.97	31.6	8	12	0									
SEMIPALATNSK	45.08	323.9	8	10	-3									
BOMBAY	45.37	278.3	8	21	6								10	2
FRUNSE	45.68	312.0	8	20A	2									
CHARTERS TS.	45.95	145.9	8	19	-1									
MAGADAN	46.08	20.7	8	20A	-1	15	4	2						
WARSAK DAM	46.29	299.3	8	22	0	15	10	6						
TASHKENT	49.17	308.7	8	47	2	15	52	7						
QUETTA	49.98	293.9	9	3	12									
MUNDARING	50.66	185.1	8	54	-2									
BRISBANE	55.34	145.2	9	32	1								10	33
ADELAIDE	56.08	162.4	9	35	-1									
ASHKABAD	57.22	303.5	9	47	3									
SVERDLOVSK	58.28	325.9	9	50K	-2									
KIZYL-ARVAT	58.86	304.9	9	57A	1									
CANBERRA	60.06	153.6	10	4	0				10	14				
MOSCOW	70.92	323.5	11	13	-1	20	24	0						
APATITY	71.84	336.2	11	18K	-1	20	36	2						
COLLEGE	73.73	26.4	11	29	-1	20	58	2					14	11 PP
PULKOVO	74.26	328.3	11	33A	0	21	2	0						
SODANKYLA	74.46	336.4	11	34A	-1									
KAJAANI	74.67	332.9	11	35A	-1									
SIMFEROPOL	74.73	312.7	11	36A	0	21	10	3						
HONOLULU	75.31	72.2	11	41	2									
KIPAPA	75.36	72.1	11	41	1									
KSARA	75.76	301.2	11	43	1	21	26	8						
KARAPIRO	76.26	138.4	11	46	1									
TARATA	76.32	140.0	11	48	3									
TROMSOE	76.64	339.4	11	46	-1									
KIRUNA	76.65	337.4	11	46	-1	21	28	0						
JERUSALEM	76.78	299.3	11	50	2									
NURMIJARVI	76.86	329.7	11	48A	0	21	31	1						
ROXBURGH	77.60	147.4	11	53	1									
TUAI	77.80	138.3	11	54	1									
UMEA	77.92	333.5	11	53	-1	21	42	0						
HAWAII V.OB.	78.37	73.3	11	58	1									
MOULD BAY	78.58	12.2	11	56	-2									
ALERT	78.89	0.4	11	59	0									
LWOW	80.18	319.3	12	6	0									
UPPSALA	80.41	330.1	12	7	-1	22	7	-1						
SKALSTUGAN	81.31	334.6	12	9	-3									
UZHGOROD	81.62	318.5	12	14	0									
SKALNATE PL.	82.71	319.4	12	21	1									
KARLSKRONA	82.79	327.0	12	18	-2									
RACIBORZ	83.64	320.8	12	21	-3									
GOTEBORG	83.96	329.3	12	17	-9									
RESOLUTE	84.02	9.0	12	25	-1									
BUDAPEST	84.08	318.1											16	20 PP
ATHENS	84.10	308.0	12	26A	-1									
BRATISLAVA	85.03	319.3	12	30	-1									
WILKES	85.22	184.2	12	32A	0									
VIENNA-H.	85.45	319.5	12	35A	2									
PRUHONICE	85.85	321.6	12	36	1	22	59	-4						
PRAGUE	85.88	321.7	12	36	1	23	2	-1					13	2
DUMONT	86.39	172.5	12	38	0									
HALLE	86.69	323.7	12	40	1	23	3	-8						
KASPERSKE H.	86.78	321.1	12	39	-1								13	4
JENA	87.15	323.3	12	41	-1	22	58	-17					28	52 SS
SCORESBY SD.	87.27	348.3	12	42	0	23	8	-8						
LJUBLJANA	87.49	318.0	12	43A	0									
MIRNY	87.60	190.8	12	43	-1									
TRIESTE	88.15	317.9				23	26	2					23	11 SKS
WITTEVEEN	88.94	326.4	12	52	2									
PADOVA	89.44	318.2				23	22	-14					13	52
STUTTGART	89.47	322.0	12	53	0								24	41 PS
MESSINA	90.02	310.6				23	42	0					23	20 SKS
DE BILT	90.09	326.2				23	27	-15						
STRASBOURG	90.44	322.4	12	58	1	23	48	3					23	38 SKKS
FLORENCE X.	90.57	317.0	13	14	16	23	27	-20						
ROME	90.59	314.9	13	16	18	23	26	-21					25	52
ALBERNI	90.77	36.7	13	1	2									
PAVIA	91.24	318.9											26	7 PPS
DOURBES	91.45	324.7	13	3	1	23	32	-22						
DURHAM	91.94	330.7				24	2	3					23	35 SKS
VICTORIA	91.95	36.8	13	5A	1									
BESANCON	92.15	321.8	13	5	0									
SEATTLE	93.05	37.2	13	23	14									
KEW	93.28	327.6				23	41	-29						
PENTICTON	93.63	34.8	13	13A	1									

GARCHY	93.82	322.9	13	12	-1									
BANFF	94.66	31.8	13	16	-1									
MAWSON	95.92	199.1	13	21A	-1									
HUNGRY HORSE	97.17	33.4	13	30	2							14	4	
BAGNERES	97.87	320.5	13	48	17									
EUREKA	101.44	41.4	13	46	-1							17	53	PP
WOODY	101.69	45.9	13	48	0									
TOLEDO	102.30	319.8										18	3	
DUGWAY	102.94	39.3	13	54	0									
MALAGA	104.43	317.4										18	21	
WICHITA MTS.	114.90	35.3	18	37	2							19	33	PP
ROLLA	115.74	28.4	18	38	1									
FAYETTEVILLE	116.13	31.2	18	38	1									
SAN JUAN	142.43	10.9	19	30	3									
ST. CLAUDE	145.31	4.4	19	33	1									
CARACAS	149.90	15.5	19	42A	2							30	8	SKKS
TRINIDAD	150.67	4.6	19	45	4									
CHINCHINA	151.34	36.2	19	47	5							19	53	PKP2
FUQUENE	151.93	32.3	19	46	3									
BOGOTA	152.47	33.8	19	47	4							23	33	PP

AUGUST 1 4.H 36.M 57.S EPICENTRE -3.35 143.68 DEPTH= 20.KM

A=-0.80437 B= 0.59128 C=-0.05811 D= 0.5923 E= 0.8057
G= 0.0468 H=-0.0344 K=-0.9983 HT= 7.1

SE= 2.60

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT MORESBY	6.92	150.3	1	42	-1	3	4	2					
RABAUL	8.51	95.9	2	5	0								
DARWIN	15.56	234.1	3	39	-1								
GUAM	16.74	3.6	3	57	2								
CHARTERS TS.	16.82	171.6	3	57	1	7	11	9					
HONIARA	17.25	111.2	4	1	0	7	22	11					
BRISBANE	25.43	160.9	5	30	2								
KOUMAC	26.37	132.1	5	39	2						6	29	PP
PORT VILA	28.06	122.4	5	50A	-2	10	38	4					
NOUMEA	29.02	132.4	6	3K	2	11	6	16					
BAGUIO CITY	30.12	311.4	6	13	2						9	53	
RIVERVIEW	31.11	167.9	6	18A	-1	11	38	15			9	18	PCP
ADELAIDE	31.79	187.7	6	24A	-1	11	40	6			9	20	PCP
CANBERRA	32.19	171.8	6	28A	-1	11	35	-5			13	9	PCS
LEMBANG	36.08	263.0	7	1	-1								
DJAKARTA	36.82	264.2	7	5	-4	13	58	67					
TANGERANG	37.02	264.2	7	8A	-2	14	0	66					
SUVA	37.06	115.9	7	19	8	13	3	8					
MUNDARING	38.42	219.1	7	21A	-1	13	17	1					
HONG KONG	38.49	312.9	7	24A	1	13	21	4			8	52	
PERTH	38.65	219.5	7	29	5	13	34	15			9	31	PPP
ABUYAMA	38.78	349.3	7	24A	-1								
TARRALEAH	38.86	176.7	7	27	1								
MOORLANDS	39.04	175.9	7	29	2								
TUKUBASAN	39.51	355.4	7	30K	-1	13	31	-1	7	35	7	42	*SP
CANTON	39.58	313.1	7	33A	1	13	41	8					
MATUSIRO	40.01	353.1	7	33A	-2	13	33	-7					
ZO-SE	40.42	329.6	7	38A	-1	13	52	6					
MIZUSAWA	42.34	357.1	7	59	5								
NANKING	42.42	328.0	7	56A	1								
ONERAHI	42.95	142.5	8	10	11						10	8	PP
KARAPIRO	45.08	143.9	8	17A	0						10	17	
TARATA	45.28	146.1	8	20	2								
COBB RIVER	45.75	149.2	8	23	1	15	10	6					
KAIMATA	46.18	151.5	8	38	13								
TUAI	46.61	143.6	8	29	0								
WELLINGTON	46.96	147.8	8	30	-1	15	31	10			10	25	PP
VLADIVOSTOK	47.47	348.3	8	35	0						10	35	PP
ROXBURGH	47.58	155.6	8	36	0	15	19	-11					
GEBBIES PASS	47.66	151.6	8	37	0								
KUNMING	48.77	307.8	8	46A	0	15	56	10			10	48	PP
SIAN	49.70	321.7	8	53A	0	16	9	10					
CHANGCHUN	49.79	342.6	8	53	0	16	7	6					
PEKING	50.01	332.4	8	55A	0	16	3	-1					
Y.-SAKHLINSK	50.17	359.1	8	55A	-1	16	3	-3			11	58	PPP
CHENGTU	50.75	314.7	9	1A	0	16	19	5					

MACQUARIE I.	52.49	168.8	9	13	-1						
PAOTOW	53.47	328.3	9	21A	0	16	59	8			
LANCHOW	54.05	320.1	9	27	2	17	0	1			
CHITTAGONG	56.72	299.4	9	43	-2	17	43	8	9 55	11 49	PP
PETROPAVLOVK	57.57	10.7	9	50	-1					11 56	PP
SHILLONG	57.82	303.0	9	52A	-1	17	56	7			
CALCUTTA	59.79	298.4	10	10	4	18	27	12		11 0	PCP
HOWRAH	59.84	298.4	10	25	18	18	27	12			
LHASA	60.08	307.0	10	10A	2	18	23	4			
HONOLULU	62.01	63.9	10	21	0	18	57	14		23 1	SS
KIPAPA	62.11	63.8	10	17	-5						
CHATRA	62.22	302.6	10	25A	2	18	54	8		14 17	PP
BOKARO	62.44	299.0	10	28	4	19	4	16		12 49	PP
MAGADAN	62.96	4.1	10	27	-1					12 57	PP
VISHAKHAPTNM	63.08	291.7	10	31K	3	19	9	12		12 57	PP
DUMONT	63.25	181.6	10	28	-2						
HAWAII V.OB.	64.10	66.6	10	40	5						
IRKUTSK	64.63	334.4	10	40	1					19 24	PS
ESEN BULAK	64.82	325.7	10	40	0	19	31	13			
MADRAS	65.09	285.9	10	42K	0	19	30	9		13 9	PP
YAKUTSK	66.07	352.8	10	46A	-2	19	23	-10			
WILKES	67.02	193.9	10	51A	-3	19	44	-1		13 19	PP
KODAIKANAL	67.29	282.5	11	3K	8	19	48	0			
HYDERABAD	67.54	290.3	10	59	2	19	58	7		13 35	PP
SEHORE	69.99	296.0	11	13	1						
CAPE HALLETT	70.83	171.7	11	18	1						
DEHRA DUN	70.91	303.5	11	19	1	20	53	22		25 40	SS
NEW DELHI	71.17	301.6	11	17A	-2					13 59	PP
POONA	72.05	290.6	11	24A	-1	20	52	8		14 10	PP
BOMBAY	73.07	290.8	11	40	9	21	8	12		14 11	PP
LAHORE	74.32	303.9	11	38	0						
SCOTT BASE	75.44	175.1	11	44	0						
TIKSI	75.47	355.2	11	42	-3					14 39	PP
SEMIPALATNSK	76.05	323.9	11	47A	-1						
WARSAK DAM	77.17	305.8	11	55	1	21	48	7			
KHOROG	77.98	309.3	12	0	1						
QUETTA	80.25	301.2	12	12	1	22	19	5			
TASHKENT	80.56	312.7	12	14A	1					15 33	PP
MAWSON	83.41	202.4	12	27K	0	22	46	0	12 37	15 46	PP
COLLEGE	84.05	23.5	12	29	-2	22	51	-2		15 34	PP
SOUTH POLE	86.67	180.0	12	43	-1						
SITKA	87.90	32.7	12	51	1					23 27	
BYRD STATION	87.90	170.0	12	49	-1					15 9	
ASHKABAD	88.36	308.0	12	52	0	23	29	-5			
SVERDLOVSK	88.98	326.9								16 27	PP
SHIRAZ	92.65	299.4	13	11A	-1	23	46	-27	13 32	38 25	PKPPKP
TEHERAN	93.80	305.4	13	16	-1	24	40	17		17 17	
VICTORIA	94.41	41.8	13	18K	-2						
UKIAH	94.50	51.2	14	11	51					18 13	PKP
MOULD BAY	94.91	13.8	13	19	-3						
CALISTOGA	95.00	51.7	13	26K	4						
SEATTLE	95.17	42.6	13	28	5						
BERKELEY	95.25	52.4	13	25K	1	23	57	0		17 19	PKP
LICK	95.74	53.0	13	25	-1						
MINERAL	95.75	50.0	13	27K	1						
PRIEST	96.53	54.2	13	15A	-14						
PENTICTON	96.90	40.9	13	31	0					30 13	PKKP
RENO	97.14	50.7	13	33K	1						
GORIS	97.80	309.2	13	35A	0	24	17	7		17 49	PP
PASADENA	98.62	56.1	13	42	3	24	20	5		17 47	PP
TIFLIS	98.85	311.5	13	40A	0					17 51	PP
BANFF	99.36	38.8	13	43	1						
EUREKA	100.11	50.7	13	46	0					17 53	PP
ALERT	100.12	3.4	13	44	-2					30 13	PKKP
HUNGRY HORSE	100.66	41.5	13	51	3					29 59	PKKP
APATITY	100.74	338.5	13	46	-3	24	25	0		17 41	PP
RESOLUTE	101.21	13.4	13	57	6						
BOULDER CITY	101.26	54.1	13	52	1						
NORD	101.29	357.1	13	54	3					22 48	
MOSCOW	101.77	326.3	13	52K	-1					18 3	PP
BUTTE	101.95	43.8	13	52	-2					30 25	PKKP
DUGWAY	102.47	49.7	13	58K	2					18 18	PP
BOZEMAN	103.05	44.0	14	0	1						
SALT LAKE C.	103.14	49.0								18 19	
SODANKYLA	103.26	339.3	13	58	-2					18 25	PP
GLEN CANYON	103.77	52.9	14	16	14					30 17	PKKP
PRICE	104.07	50.1								27 32	PS
KAJAANI	104.14	336.0	14	2	-2					18 23	PP
PULKOVO	104.50	331.3	14	4	-1	24	44	1		18 30	PP

FLAMING GRGE	104.96	48.6	14	7	0					
KIRUNA	105.16	340.8	14	9	777	24	51	5	18	29 PP
SIMFEROPOL	106.16	315.8	14	21	777				18	38 PP
KSARA	106.64	304.2	14	22	777	24	42	-10	18	44 PP
NURMIJARVI	106.87	333.1	14	7	777	25	0	7	18	43 PP
UMEA	107.22	337.2	14	20	777	25	0	5	18	43 PP
JERUSALEM	107.44	302.1	14	23	777				18	56 PP
CHANGALANE	107.62	241.2				25	15	18	18	57 PP
ALBUQUERQUE	108.16	54.4	14	23	777				18	29 PKP
UPPSALA	110.29	334.2	14	42	-229				19	10 PP
SKALSTUGAN	110.32	339.0	14	43	-228				19	6 PP
LWOW	111.36	322.8	14	44	-229	25	20	8	28	49
WARSAW	112.16	326.0	18	40	6	25	25	10	19	21 PP
BULAWAYO	112.18	246.8	18	36	2					
SCORESBY SD.	112.32	354.8	18	29	-5				19	28 PP
KARLSKRONA	113.12	331.4	14	44	-232				19	9 PP
BROKEN HILL	113.42	252.8	18	28	-9					
KRAKOW	113.70	324.2	18	44	7				19	33 PP
SOFIA	114.28	315.7	18	45	7				19	44 PP
WICHITA MTS.	114.56	53.3	18	43	4	25	30	5	19	41 PP
TIMISOARA	114.62	319.5	18	37	-2				25	36
LWIRO	114.67	266.0	14	59K	-220				19	46 PP
RACIBORZ	114.69	324.7	18	37	-2				19	39 PP
COPENHAGEN	114.87	332.0							19	48 PP
MANHATTEN	114.92	48.1	18	41	1					
BUDAPEST	115.33	321.9	18	25	-15	25	37	9	19	45 PP
ATHENS	115.44	310.7	14	59	-222				19	47 PP
BELGRADE	115.48	318.7	18	45K	4				29	35 PS
HERMANUS	115.73	229.2							29	43 PKKP
LAWRENCE	115.98	48.0	18	38	-4					
BRATISLAVA	116.20	323.2	15	13	-209	25	38	7	20	13 PP
TULSA	116.46	51.4	18	45	2	25	38	6	19	48 PP
DALLAS	116.47	54.9	18	45	2					
PRUHONICE	116.82	325.9	18	44	1				15	5 P
PRAGUE	116.84	326.0							29	42 PS
COLLMBERG	116.99	327.7	15	4	-220				20	0 PP
FAYETTEVILLE	117.65	50.7	18	45	0				19	57 PP
KASPERSKE H.	117.79	325.4	18	46	1				22	41 PPP
ZAGREB	117.94	321.2	18	45	0				20	16 PP
JENA	117.94	327.9	18	46	1	27	57	140	19	57 PP
CHEB	117.97	326.8							20	9 PP
HOUSTON	118.35	58.0							20	12 PP
ROLLA	118.81	48.1	18	48	1					
WITTEVEEN	119.30	331.7	18	50	2					
TARANTO	119.33	315.2							20	13
TRIESTE	119.40	321.9	18	53	5				20	13 PP
FLORISSANT	119.62	46.7	18	47	-2					
ST. LOUIS 1	119.78	46.8	18	52	3					
ABERDEEN	119.89	339.3							20	20 PP
FELDBERG	119.99	328.5	18	54	5					
CHICAGO JSA.	120.29	42.5	18	50	0					
HEIDELBERG	120.32	327.6	18	51	1					
STUTTGART	120.38	326.8	18	51	1				20	17 PP
DE BILT	120.46	331.7	15	9	-221				20	22 PP
PADOVA	120.67	322.4	19	3	12	26	3	16	20	23 PP
RAVENSBURG	120.74	325.7	18	51	0					
AQUILA	121.16	318.6	18	54	2	25	43	-5	20	27 PP
CHUR	121.30	324.8	18	53	1					
STRASBOURG	121.31	327.3	18	53	1				20	32 PP
MESSINA	121.43	313.4	18	55	3	25	55	6	20	35 PP
DURHAM	121.52	337.2	18	52A	0				23	16 PP
FLORENCE X.	121.87	321.0	18	57	4				20	23 PP
ROME	121.98	318.5	18	57	4				20	25 PP
BASLE	122.02	326.3	18	57	4					
DOURBES	122.02	330.2	18	55	2	26	8	17		
BLOOMINGTON	122.23	44.9	18	55	1					
PAVIA	122.42	323.3	19	5	11				30	56 PS
CHIAVARI	122.78	322.4	19	27	32				20	56 PP
SCHEFFERVLLE	123.05	20.5	18	56	1					
BESANCON	123.06	326.8	18	57	2				20	37 PP
KEW	123.40	333.9	18	59	3				19	28 PP
ROSELEND	123.62	325.0	19	2	6				20	40 PP
PARIS	123.91	330.1	18	59	2				20	51 PP
LONDON ONT.	123.94	38.6	18	57	0					
ISOLA	124.23	323.3	18	59	1					
MONACO	124.25	322.7	18	58	0					
GARCHY	124.60	328.3	18	59	1				20	55 PP
FOLINIERE	125.38	331.6	19	1	1					
BREBEUF	126.86	32.2	19	3	0				21	5 PP

PENNSYLVANIA	127.23	39.2	19	4	1						
BANDEIRA	127.61	248.4	19	7K	3				21	15	PP
WASHINGTON	128.79	40.8	19	8	2				21	13	PP
BAGNERES	128.89	326.0	19	9	2				22	34	PP
CHAPEL HILL	128.99	45.1	19	8	1						
LUANDA	129.14	255.8	19	11K	4				21	23	PP
PALISADES	129.54	36.8	19	9	1						
FORDHAM	129.66	36.9	18	54	-14				21	4	PP
TORTOSA	130.12	323.5	19	11	2				21	31	PP
WESTON	130.16	33.8	19	8	-1						
SANTA LUCIA	131.11	141.3	19	16	5				22	38	
ALICANTE	132.24	321.6	19	17	4				21	46	PP
HALIFAX	132.40	26.3	19	14	1						
TOLEDO	133.37	325.6	19	18	3				21	53	PP
ALMERIA	134.41	321.3	19	19	2				21	53	PP
SERRA PILAR	134.88	330.3	19	13K	-5	26 22	-3		21	54	PP
GRANADA	134.89	322.5	19	21	3	25 54	-31		22	9	PP
COIMBRA	135.50	329.3	19	20	1				22	5	PP
MALAGA	135.68	322.6	19	21K	2				21	59	PP
BALBOA HTS.	136.68	80.6	19	23	2				22	11	PP
LISBON	136.97	328.4	19	25	3				19	10	PP
HUANCAYO	138.31	112.2	19	20	-4						
CHINCHINA	140.77	86.3	19	28	-1				22	39	PP
BOGOTA	142.33	86.8	19	30	-2				22	46	PP
FUQUENE	142.65	85.4	19	28	-4				22	48	PP
PONTA DELGDA	144.43	345.4	19	36	1	26 33	-7		41	35	SS
SAN JUAN	147.23	60.7	19	41	1						
CARACAS	148.82	75.3	19	48A	6				24	2	PP
ST. KITTS	150.60	59.9	19	50	5						
ST. CLAUDE	152.04	61.5	19	52	5				25	20	
FORT FRANCE	153.04	63.7	19	50	1				23	45	PP
ST. VINCENT	153.48	67.0	19	54	5						
TRINIDAD	154.09	72.5	19	53	3						
BARBADOS	155.03	65.8	20	1	10						

AUGUST 1 15.H 47.M 43.5 EPICENTRE 39.33 98.57 DEPTH= 0.KM

A=-0.11558 B= 0.76699 C= 0.63116 D= 0.9888 E= 0.1490
G=-0.0941 H= 0.6241 K=-0.7756 HT= -1.4

SE= 1.73

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
LANCHOW	5.30	126.5	1	21A	-2	2	23	-2			1	40	PG
ESEN BULAK	7.27	347.2	1	51A	1								
PAOTOW	8.89	78.3	2	16	3						2	46	PG
SIAN	9.72	118.2	2	48	24								
ULAN-BATOR	10.49	32.3	2	34	-1	4	28	-7					
PEKING	13.58	81.4	3	14	-3								
KUNMING	14.59	164.8	3	30	0								
SHILLONG	14.83	204.3	3	30K	-3								
PRZHEVALSK	15.57	288.1	3	43K	0								
CHATRA	15.68	220.8	3	51	7	6	50	11					
ALMATA-2	16.40	290.7	3	53	0								
SEMIPALATNSK	17.02	316.6	4	1	0								
FRUNSE	18.38	288.7	4	19K	1								
BOKARO	18.86	218.8									10	42	
CALCUTTA	18.87	210.4				8	3	11					
DEHRA DUN	19.06	248.2	4	26	0	7	45	-11					
CHANGCHUN	20.47	68.6	4	44	2	8	34	7					
NEW DELHI	20.67	245.2	4	44K	0	8	26	-5					
LAHORE	21.18	256.0	4	49	0								
KHOROG	21.25	273.6	4	53	3								
HONG KONG	21.57	137.3	4	52	-1								
WARSAK DAM	22.28	264.6	5	2	2								
TASHKENT	22.38	284.5	5	3	2								
VLADIVOSTOK	25.26	70.5	5	36	7								
QUETTA	27.42	260.3	5	50	1								
YAKUTSK	29.58	29.6	6	9A	0								
BOMBAY	30.16	235.0									18	3	
VANNOVSKAYA	31.46	280.5	6	27	1								
TEHERAN	37.26	279.7	7	18	3								
SHIRAZ	38.81	270.0	7	30A	2	13	29	2			8	40	
MOSCOW	42.81	313.3	8	2A	1								
APATITY	44.93	330.4	8	18K	-1								

KAJAANI	47.26	325.6	8	36A	-1			
KEVO	47.38	333.3	8	40	2			
SODANKYLA	47.54	330.1	8	39A	0	10	31	PP
HELSINKI	49.00	320.5	8	51	1			
NURMIJARVI	49.09	321.0	8	51A	0	10	46	PP
KIRUNA	49.88	330.9	8	57A	0			
TROMSOE	50.20	333.4	8	59	-1			
UMEA	50.56	325.8	9	2A	0	10	18	PCP
LWOW	52.06	307.7	9	13	-1			
UPPSALA	52.66	321.2	9	18A	0			
UZHGOROD	53.53	306.7	9	25	0			
SKALSTUGAN	54.06	326.5	9	27A	-2	10	31	PCP
KRAKOW	54.48	309.1	9	31	-1			
SKALNATE PL.	54.60	308.0	9	34	1	12	53	PPP
KARLSKRONA	54.82	317.2	9	33A	-1			
NORD	54.85	350.6	9	33A	-2			
BRATISLAVA	56.91	307.8	9	49K	0			
PRUHONICE	57.71	310.6	9	55A	0	12	1	
PRAGUE	57.75	310.7	9	55	0			
COLLMBERG	58.07	312.5	9	57A	0	12	9	PP
KASPERSKE H.	58.64	310.0	10	2	1	11	34	
JENA	59.04	312.5	10	3	-1	12	9	PP
LJUBLJANA	59.41	306.4	10	6A	-1			
TRIESTE	60.07	306.3	10	11	0			
STUTTGART	61.34	311.1	10	20	0			
AQUILA	61.83	303.1				33	37	
DOURBES	63.37	314.1	10	34	0			
BESANCON	64.01	310.8	10	37	-1			
COLLEGE	64.02	25.8	10	36	-2			
PORT MORESBY	66.18	126.0	10	55A	3			
FOLINIERE	66.89	314.7	10	55	-1			
MUNDARING	72.80	164.4	11	30	-2			
CHARTERS TS.	74.02	133.7	11	38	-2			
TOLEDO	74.18	308.7	11	41A	1			
LWIRO	75.91	255.2	11	51A	1			
BENI ABBES	79.06	299.9	12	5	-3			
ADELAIDE	82.72	147.7	12	26K	-1			
BROKEN HILL	84.30	246.3	12	35	0			
SCHEFFERVLLE	85.39	351.6	12	39	-2			
PENTICTON	85.51	23.9	12	41A	0			
HUNGRY HORSE	88.03	21.1	12	55	1	13	28	
BULAWAYO	88.07	242.0	12	54	0			
BUTTE	90.57	21.1	13	5	-1			
BOZEMAN	91.31	20.3	13	9	0			
MINERAL	92.63	29.6	13	15A	0			
EUREKA	95.44	26.2	13	29	1			
DUGWAY	95.82	23.6	13	30	0			
FLAMING GRGE	96.15	20.9	13	31	0			
WICHITA MTS.	104.63	14.5	17	33	204	18	39	PP

AUGUST 3 8.H 56.M 13.S EPICENTRE -23.21 -68.02 DEPTH= 70.KM

A= 0.34434 B=-0.85316 C=-0.39185 D=-0.9273 E=-0.3743
G=-0.1467 H= 0.3634 K=-0.9200 HT= 3.9

DEPTH OF FOCUS= 0.006R

SE= 2.27

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
ANTOFAGASTA	2.26	257.0	0	42	6							
COPIAPO	4.63	206.6	1	10	1	1	45	-18				
AREQUIPA	7.47	333.5	1	51	2							
SANTA LUCIA	10.45	192.2	2	27A	-2	4	23	-3				
HUANCAYO	13.10	326.7	3	19	14							
CONCEPCION	14.01	193.5	3	19	2	5	58	7				
BUENOS AIRES	14.08	145.8	3	12	-6							
BOGOTA	28.28	347.2	5	52K	3	10	48	19				
CHINCHINA	28.97	344.2	5	58	3							
FUQUENE	29.04	348.2	5	59	3							
CARACAS	33.52	1.9	6	34K	-1	11	43	-8				
BALBOA HTS.	33.91	339.3	6	40K	2	11	58	1				
TRINIDAD	34.27	11.6	6	42K	0	11	57	-6				
FORT FRANCE	38.30	10.8	7	26	10	12	56	-8				
ST. CLAUDE	39.48	9.6	7	24	-1	13	10	-12				

ST. KITTS	40.63	7.8	7 33	-2					
SAN JUAN	41.38	2.7	7 38K	-3	13 38	-12		9 21	PP
SANTIAGO MA.	41.60	329.2	7 44	1					
G.G. VIDELA	41.74	176.7	7 46K	2	13 55	-1		9 40	PCP
HOPE	41.84	347.5	7 46	1					
BLACK RIVER	42.07	345.9	7 45	-2					
ARGENTINE I.	42.10	177.6	7 44	-3	13 56	-5		9 15	PP
SAN SALVADOR	42.12	328.4	7 49	2	14 55	54			
COMITAN	45.76	326.8	8 11	-5	14 47	-7		18 47	
OAXACA	48.87	322.3	8 41	0	15 41	3			
VERA CRUZ	50.29	324.6	8 53	1	15 59	1			
PUEBLA	51.29	322.4						9 23	
TACUBAYA	52.15	321.8	9 9	3	16 25	2		18 47	SCS
MANZANILLO	54.96	316.8	9 26	0				15 47	
GUADALAJARA	55.56	319.0	9 32	1					
HOUSTON	58.84	332.1	9 56	2					
MAZATLAN	59.31	318.4	9 59	2				17 59	
CHAPEL HILL	59.73	349.6	10 0	0					
BYRD STATION	60.94	189.0	10 7	-1	18 25	6			
GEORGETOWN	62.36	352.0	10 17	-1	18 34	-3			
WASHINGTON	62.36	352.0	10 17A	-1	18 29	-8	10 49	12 43	PP
CHIHUAHUA	63.25	322.6	10 1	-23	18 23	-25			
FAYETTEVILLE	63.96	336.6	10 26A	-2				39 6	
FORDHAM	63.96	355.1	10 27	-1	18 50	-7			
PALISADES	64.12	355.0	10 28K	-1	18 54	-5	11 6	20 10	SCS
PENNSYLVANIA	64.33	351.7	10 30K	-1					
TULSA	64.40	335.2	10 30	-1	18 59	-4		12 53	PP
BLOOMINGTON	64.44	344.2	10 29K	-2	18 53	-10			
WICHITA MTS.	64.51	332.3	10 29	-3	18 59	-5	11 3	12 48	PP
ROLLA	64.80	339.3	10 33K	-1	18 57	-10			
ST. LOUIS 1	64.95	340.9	10 32K	-3	19 2	-7			
LUBBOCK	65.02	329.2	10 34	-1	19 6	-4			
FLORISSANT	65.14	340.9	10 34	-2	19 4	-8			
WESTON	65.33	357.3	10 37	0	19 1	-13			
CLEVELAND	65.57	348.9	10 38K	-1	19 11	-6			
LAWRENCE	66.90	337.2	10 45	-2					
SOUTH POLE	66.93	180.0	10 45	-2					
LONDON ONT.	67.02	349.6	10 46A	-2					
CHICAGO JSA.	67.28	344.2	10 48	-1					
MANHATTEN	67.59	336.3	10 52K	1	19 31	-10			
HALIFAX	67.62	3.4	10 51K	-1					
ALBUQUERQUE	68.38	326.7	10 55K	-1	19 39	-12			
BREBEUF	68.57	355.8	10 57K	0	19 49	-4	11 23	13 32	PP
TUCSON	68.66	321.8	10 56K	-2	19 49	-5		39 0	PKPPKP
TUCSON TELE.	68.67	322.0	10 56	-2				39 5	PKPPKP
ANGRA DO HO.	72.44	32.4			20 47	9		12 2	
PONTA DELGDA	72.52	34.0	11 22	1	20 35	-4		25 10	SS
GLEN CANYON	72.59	324.7	11 22K	0	20 35	-5			
BOULDER CITY	73.65	322.0	12 29	61	21 51	60			
PRICE	74.17	326.9	11 32	1	20 56	-1			
SCOTT BASE	74.30	190.4	11 33	1	20 59	0			
RAPID CITY	74.32	334.5	11 32K	0					
PASADENA	74.34	318.6	11 32	0	20 58	-1	12 35	38 49	PKPPKP
FLAMING GRGE	74.49	328.7	11 32K	-1	20 36	-25			
HERMANUS	75.11	121.3			21 6	-2		12 7	PCP
SALT LAKE C.	75.57	327.1	11 39K	0	20 55	-18		14 49	PP
DUGWAY	75.63	326.1	11 39K	0	21 11	-2		22 5	PS
BANDEIRA	76.46	100.5	11 46K	2	21 21	-2		21 56	*SS
EUREKA	76.77	323.8	11 46K	0				14 40	PP
CAPE HALLETT	76.99	195.5	11 47	0					
PRIEST	77.18	318.7	11 49K	1				38 57	PKPPKP
SCHEFFERVLLE	77.71	0.7	11 50K	-1	21 29	-7			
LICK	78.56	319.1	11 55K	-1				38 54	PKPPKP
LUANDA	78.57	94.8	11 58A	2	21 39	-6		14 51	PP
BOZEMAN	78.92	330.8	11 57K	-1	21 46	-3		15 12	PP
RENO	78.95	321.8	11 59K	1					
BERKELEY	79.28	319.2	12 0K	0	21 49	-4		15 3	PP
BUTTE	79.87	330.2	12 1K	-2					
CALISTOGA	79.97	319.6	12 3K	0					
MINERAL	80.52	321.4	12 5K	-1					
UKIAH	80.67	319.7	12 9K	2				12 55	
GRAHAMSTOWN	81.22	122.4	12 22K	12					
KIMBERLEY	81.49	117.5	12 11K	0					
HUNGRY HORSE	82.28	331.0	12 16K	1				16 48	
MAWSON	82.47	169.0	12 14K	-2	22 21	-5	12 36	23 19	PS
BENI ABBES	82.50	52.9						42 14	
LISBON	82.65	42.5	12 18	1	22 26	-2		15 29	PP
COIMBRA	83.99	41.6	12 25K	1	22 39	-2	12 43	15 35	PP
SERRA PILAR	84.44	40.8	12 27A	1	22 44	-1		15 40	PP

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MALAGA	84.54	46.3	12	29K	2	22	43	-3		15	41 PP
GRANADA	85.33	46.3	12	34A	3	22	44	-10		15	50 PP
PENTICTON	85.55	329.0	12	31K	-1						
PIETERMZBURG	85.68	120.3	12	37K	5						
SEATTLE	85.73	326.6	12	34	1					22	56
ALMERIA	85.90	47.1	12	32	-2	22	45	-15	13 5	15	53 PP
TOLEDO	86.54	43.8	12	37K	0	22	55	-11	13 13	16	21 PP
VICTORIA	86.87	326.8	12	38K	0						
DUMONT	87.94	190.8	12	42	-1						
BULAWAYO	88.03	111.0	12	44K	0						
ALICANTE	88.04	46.6	12	44	0	23	0	-20		16	16 PP
TORTOSA	89.97	44.9	12	54	1					23	11
BROKEN HILL	90.21	105.7	12	57	3						
WILKES	90.73	179.4	12	58	1	23	40	-4		16	32 PP
BAGNERES	90.91	42.9	12	58	1	23	29	-17		16	27 PP
MACQUARIE I.	92.75	205.3	13	7A	1						
JERSEY	92.83	36.9	12	59	-7	23	28	-35			
GEBBIES PASS	93.27	219.3	13	10	2						
TUAI	93.29	225.3	13	11	3				13 49		
WELLINGTON	93.41	222.2	13	10K	1	23	29	-39		16	52 PP
FOLINIERE	93.51	37.8	13	7	-2						
CHATEAU	94.11	224.2	13	13	1				13 58	17	2 PP
REYKJAVIK	94.15	18.5	13	13K	1	23	40	-34		16	20 PP
KAIMATA	94.70	219.7	13	24	9						
COBB RIVER	94.78	221.4	13	18	3						
GARCHY	94.82	40.3	13	15	0					17	4
KARAPIRO	94.82	225.3	13	16K	1				13 52	17	7 PP
KEW	95.01	35.5	13	14K	-2	23	38	-6		16	56 PP
HAWAII V.OB.	95.04	288.9	13	18	2	24	48	64			
PARIS	95.23	38.7	13	17	0	23	41	-4		17	6 PP
LWIRO	95.39	94.7	13	20	2					19	10
ISOLA	95.83	44.3	13	20	0						
MONACO	95.88	44.9	13	20	0						
DURHAM	96.10	32.3	13	20A	-1	23	45	-5		17	15 PP
BESANCON	96.55	41.2	13	17	-6						
NEUCHATEL	97.03	41.8	13	25	0					17	20
DOURBES	97.05	38.3	13	25	-1	23	52	-3			
ABERDEEN	97.13	30.1	13	21A	-5	23	49	-6		19	19 PPP
CHIAVARI	97.36	44.9	14	0	33	23	37	-20		17	20 PP
PAVIA	97.63	44.1	13	59	31					23	43
BASLE	97.65	41.5	13	17	-11	23	56	-2			
SITKA	97.71	329.4	13	27	-1					17	27 PP
KIPAPA	98.18	289.7	13	33K	2						
HONOLULU	98.20	289.6	13	32K	1	23	29	-2		17	27 PP
STRASBOURG	98.22	40.6	13	31	0	23	57	-4		17	29 PP
DE BILT	98.30	36.6	13	7	-24	24	0	-1		24	45 S
PRATO	98.34	45.9	13	33	2	24	47	45			
ROME	98.47	48.1	13	33K	1	24	0	-2	14 7	17	33 PP
EBINGEN	98.77	41.3	13	33	0						
SCORESBY SD.	98.89	14.2	13	34	0	24	2	-2			
TUBINGEN	98.98	41.0	13	33	-1						
RAVENSBURG	99.00	41.8	13	33	-1					17	34 PP
HEIDELBERG	99.14	40.1	13	35	0					17	33 PP
RESOLUTE	99.18	353.0	13	35K	0						
STUTTGART	99.21	40.8	13	33	-2	24	3	-3	14 10	17	32 PP
MESSINA	99.22	52.5	13	30	-5	23	58	-8	13 51	17	35 PP
REGGIO CALA.	99.25	52.6								17	28
AQUILA	99.28	48.0	13	35	-1	24	1	-5		17	34 PP
FELDBERG	99.33	39.3	13	29	-7					17	25 PP
THULE	99.40	359.9	13	35A	-1					17	43 PP
WITTEVEEN	99.44	36.4	13	37	1					17	41 PP
PADOVA	99.46	44.7				25	2	55		17	37 PP
TRIESTE	100.77	45.0	13	42	0	24	9	-5		17	49 PP
TARANTO	101.27	50.8								17	37 PP
LJUBLJANA	101.42	44.8	13	46K	1	24	9	-8		17	54 PP
JENA	101.44	39.4	13	44	-1	24	16	-1	14 3	17	53 PP
CHEB	101.59	40.4	13	46	0	24	15	-3		17	54 PP
BERGEN	102.07	29.1				24	17	-3		25	15 PS
ZAGREB	102.29	45.4	13	59	10	24	19	-2			
COLLMBERG	102.41	39.4	13	50K	0	24	20	-2		18	0 PP
PRAGUE	102.81	40.9	13	53K	2	24	23	0	14 27	17	57 PP
PRUHONICE	102.85	41.0	13	52	0					18	1 PP
SUVA	103.19	243.5	13	49	-4					17	52 PP
TITOGRAD	103.36	49.5	13	49	-5	24	22	-4		18	8 PP
VIENNA-H.	103.38	43.1	13	54A	0	25	4	38		18	8 PP
COPENHAGEN	103.69	35.1	13	56K	1						
BRATISLAVA	103.81	43.4	13	56	0	25	26	58		18	12 PP
MOULD BAY	104.04	348.9	13	56	-1						

GOTEBERG	104.17	33.0								18	16 PP
HURBANOVO	104.41	43.9								17	16
TANANARIVE	104.46	118.1	14	3	4	24	33	2		18	21 PP
SKOPJE	104.75	50.5				24	29	-3		17	47
BUDAPEST	104.82	44.5	13	59	-1	24	27	-6		18	19 PP
BELGRADE	104.94	47.4	14	7K	6	24	29	-4		17	52 PP
RACIBORZ	105.11	41.7	14	2	777					27	44 PS
SZEGED	105.16	45.9								18	26 PPS
ATHENS	105.20	54.9	14	4K	777	24	31	-3		18	11
KARLSKRONA	105.52	35.2	18	23	777					29	58 PKKP
ALERT	105.53	0.8	14	3K	777						
SKALNATE PL.	106.11	43.1				24	32	-6		18	28 PP
KRAKOW	106.16	42.1	14	12	777	25	23	44		18	30 PP
SOFIA	106.31	50.2	14	15	777	24	37	-2		18	23 PP
SKALSTUGAN	106.33	27.4	14	8	777					18	32 PP
COLLEGE	106.54	334.0	14	6K	777	25	49	69		18	13 PP
WARSAW	107.43	40.1	14	8	777	25	30	46		18	44 PP
UPPSALA	107.64	31.9	14	10	777	24	38	-7		17	44 PP
NORD	107.64	6.9	16	45	777	24	43	-2			
LWOW	108.65	43.1	14	17	777	24	45	-4		18	48 PP
BUCHAREST	108.70	49.0	17	55	777	24	45	-5		25	40 SKKS
UMEA	109.80	28.1				26	24	90		18	57 PP
NOUMEA	110.32	233.5								19	0
IASI	110.35	46.4				24	52	-4		19	2
TROMSOE	110.48	21.9	17	23	-61						
KIRUNA	110.68	23.9	14	26	-239	24	51	-7		19	4 PP
NURMIJARVI	111.21	32.0	18	25	-1	24	53	-7		19	5 PP
HELSINKI	111.31	32.4	18	26	0					19	6 PP
CANBERRA	112.04	212.1	18	18	-9	24	59	-4		19	10 PP
RIVERVIEW	112.12	214.6	18	19A	-8	25	0	-4		19	10 PP
JERUSALEM	112.63	63.9	18	30	1						
SODANKYLA	112.97	24.8	18	29	0	25	0	-7		19	24 PP
KAJAANI	113.10	28.4	18	28	-1					19	11 PP
KSARA	113.65	61.9	18	26	-5	25	7	-3	15 19	19	23 PP
PULKOVO	113.92	33.2	18	31	0	25	5	-6		26	9 SKKS
SIMFEROPOL	114.41	49.7	18	31	-1	25	7	-6	19 5	19	29 PP
APATITY	115.59	24.7	18	35K	1	25	12	-5	19 40	20	11 PP
BRISBANE	116.10	220.3	18	35	0						
ADELAIDE	116.82	204.5	18	38A	1					19	44 PP
MOSCOW	117.62	37.9	18	38	0	25	19	-5		19	50 PP
TIFLIS	121.80	54.3	18	47	1	25	35	-4		20	25 PP
GORIS	122.80	57.0	18	49	1	25	40	-2		20	27 PP
HONIARA	122.95	240.9	18	49	0					40	1
MUNDARING	124.98	184.4	18	50	-3					20	40 PP
PERTH	125.03	184.0	18	54	1					20	43 PP
CHARTERS TS.	125.50	220.6								18	55 PP
TEHERAN	126.54	61.9	18	57K	2	25	53	0	19 38	21	27 PPP
SHIRAZ	126.86	69.6	18	56	0	25	51	-3		20	47 PP
SVERDLOVSK	130.03	34.1	19	2	0	25	56	-7		21	12 PP
TIKSI	130.60	353.0	18	57	-6				19 21	21	17 PP
ASHKABAD	132.17	59.2	19	9	3					21	32 PP
RABAUL	132.26	240.4	19	6	0					19	37
PORT MORESBY	132.73	230.7	19	9K	2				21 33	23	28 PP
PETROPAVLOVK	133.92	322.4	19	9	0	26	5	-7		21	43 PP
MAGADAN	134.61	333.4	19	11	0					21	45 PP
QUETTA	139.38	70.2	19	24	4						
TASHKENT	140.09	52.8	19	16	-5				19 56	22	21 PP
DARWIN	140.11	209.5	19	16	-5					21	30
KHOROG	142.60	58.2	19	22	-3					22	55 PKS
WARSAK DAM	143.12	63.9	19	23	-3						
BOMBAY	143.28	89.2	19	25	-1					23	7 PP
SEMIPALATNSK	143.31	34.3	19	24	-3						
FRUNSE	143.46	48.6	19	25	-2				20 3	29	21 SKKS
POONA	144.14	90.2	19	27K	-1					23	9 PP
KODAIKANAL	144.63	105.6	19	30K	1					30	39 PP
LAHORE	145.68	67.7	19	34	3						
Y.-SAKHLINSK	145.77	321.6	19	31	0				20 8	22	54 PP
SEHORE	147.97	83.1	19	38	4						
HYDERABAD	148.08	94.1								19	41 PP
MADRAS	148.18	103.0	19	41	6					33	8
NEW DELHI	148.33	72.9	19	34K	-1					33	10
DEHRA DUN	148.97	69.4	19	36	0					29	50
LEMBANG	149.84	171.4	19	39K	2					23	16
DJAKARTA	150.36	169.6	19	38K	0					23	6
IRKUTSK	150.40	9.5	19	39	1					29	57 SKKS
MIZUSAWA	150.60	309.5	19	43K	5					20	5
TUKUBASAN	152.46	304.5	19	42A	1					23	30 PP
VISHAKHAPTNM	152.61	96.2	19	47	6						

HONGO	152.88	303.6	19 55	13				
ESEN BULAK	153.60	25.0	19 44K	1				
MATUSIRO	153.76	306.4	19 44K	1			23 39	PP
VLADIVOSTOK	154.19	325.0	19 44	0			20 8	PKPZ
ULAN-BATOR	155.01	8.1	19 46K	1				
BOKARO	156.00	83.3	19 52K	6			29 58	
ABUYAMA	156.39	304.8	19 46K	U				
MEDAN	156.63	144.6	19 45	-2			22 10	
CHANGCHUN	156.68	335.1	19 48K	1			23 53	PP
CHATRA	157.24	75.8	19 50	2			32 58	
HOWRAH	158.19	87.1	19 50	1			23 34	PP
PORT BLAIR	158.37	118.8	19 53	4			30 35	
LHASA	160.20	66.7	19 54K	3				
CHITTAGONG	161.39	88.7	19 55K	3	20 17		20 43	PKP2
SHILLONG	161.53	78.6	19 54K	2			30 58	
PAOTOW	162.60	5.0	19 55K	1			24 27	PP
PEKING	162.86	349.0	19 55K	1	20 34		24 26	PP
LANCHOW	165.38	27.1	19 58K	2	20 37		24 39	PP
MANILA	167.91	227.0	20 1	3				
ZO-SE	168.65	315.8	20 0K	1			24 58	PP
SIAN	168.68	13.0	20 2K	3	20 39		25 0	PP
NHATRANG	168.76	166.0	20 1	2				
NANKING	169.32	327.1	20 1K	2	20 37		24 59	PP
BAGUIO CITY	169.46	231.7	20 0	1				
CHENGTU	169.73	42.1	20 2K	3	20 37		21 53	PKPZ
HWALIEN	171.12	276.8	20 3	3			25 14	
KUNMING	171.35	75.4	20 1K	1	20 38		21 59	*PPKPZ
TAITUNG	171.54	268.7	20 8	8				
TAWU	171.72	265.8	19 54	-6				
HENGCHUN	171.81	263.2	20 1	1				
HONG KONG	177.78	246.3	20 5K	3			25 41	PP
CANTON	178.74	264.8	20 5K	3	20 43		25 50	PP

AUGUST 3 11.H 4.M 6.S EPICENTRE 40.83 73.20 DEPTH= 47.KM

A= 0.21926 B= 0.72640 C= 0.65135 D= 0.9573 E=-0.2890
G= 0.1882 H= 0.6236 K=-0.7588 HT= -2.0

DEPTH OF FOCUS= 0.002R

SE= 2.12

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
ANDIJAN	0.64	262.6						0 12	PG
NAMANGAN	1.17	277.6						0 21	PG
FERGANA	1.18	247.7						0 20	PG
NARYN	2.19	73.4	0 33	-2					
DZERGETAL	2.21	223.9	0 38	3					
FRUNSE	2.26	27.5	0 38A	2				1 8	S*
MURGAB	2.52	166.9	0 43	3				1 17	S*
GARM	2.89	231.6	0 47	2					
TASHKENT	3.01	280.6	0 46A	0					
TCHIMKENT	3.07	299.6	0 48	1	1 26	3			
OBI-GARM	3.44	232.8	0 53	1					
KHOROG	3.59	201.8	0 58	3				1 52	S*
ALMATA	3.70	47.7	0 57A	1				1 47	S*
ALMATA-2	3.94	50.5	0 59	-1					
KULYAR	3.97	223.5	1 1	1				2 2	
DUZHANBE	4.10	237.9	1 2A	0				2 22	
PRZHEVALSK	4.23	65.4	1 4A	0	1 55	3			
CHILIK	4.74	53.1	1 10	-1				2 22	
SAMARKAND	4.90	258.3	1 12	-1				2 40	SG
WARSAK DAM	6.95	191.4	1 40	-2					
LAHORE	9.31	174.0	2 14	0					
SEMIPALATNSK	10.76	24.9	2 31A	-3					
DEHRA DUN	11.21	157.9	2 35	-5	4 40	-5		4 51	SS
QUETTA	11.78	207.5	2 46	-2	4 41	-18			
ASHKABAD	11.85	260.7	2 47	-2					
NEW DELHI	12.66	163.8	2 53K	-7	5 7	-13			
KIZYL-ARVAT	13.09	268.3	3 2A	-3				6 55	
ESEN BULAK	17.56	63.9	4 5A	2	7 28	13			
TEHERAN	17.85	260.5	4 7	1	7 28	7		9 1	
SEHORE	17.91	168.3	4 3	-4					
SVERDLOVSK	17.97	337.2	4 5	-3	7 19	-5			
CHATRA	18.12	136.1	4 9	-1	7 25	-2			
LHASA	18.32	122.0	4 14A	2					

MAKHACH-KALA	19.23	284.9	4 16	-7					7 56	
BOKARO	19.98	144.2	4 35K	4	8 12	4			8 32	SS
SHIRAZ	20.20	243.0	4 32A	-1			4 58		8 21	PKS
KIROVOBAD	20.34	278.3	4 34	-1	8 16	1				
GORIS	20.56	275.1	4 37K	0					8 24	
TIFLIS	21.33	281.8	4 46A	1	8 35	1			9 50	
SHILLONG	21.74	128.7	4 49	0	8 38	-4				
EREVAN	21.80	277.7	4 51	1					5 18	PP
BOMBAY	21.86	181.0			8 58	14			5 25	
POONA	22.24	178.4	4 54A	0	8 49	-2			9 32	SSS
HOWRAH	22.25	140.5	4 54	0	9 6	15				
HYDERABAD	23.76	167.5	5 11	2	9 26	8			10 24	SS
IRKUTSK	24.07	51.1	5 12A	0	9 29	6				
CHITTAGONG	24.21	133.9	5 15	2						
LANCHOW	24.39	91.3	5 16	1	9 34	6				
VISHAKHAPTNM	24.62	156.4	5 19K	2	9 51	19			11 6	SS
SOTCHI	24.86	287.5	5 20A	1						
ULAN-BATOR	24.96	62.2	5 23A	3						
CHENGTU	26.86	102.4	5 38	0						
MOSCOW	27.60	314.7	5 44A	-1	10 21	0				
PAOTOW	27.79	78.3	5 52	5						
MADRAS	28.40	165.6	5 47	-5	10 28	-6			6 36	PP
SIMFEROPOL	28.73	291.4	5 55A	0	10 42	2			12 12	SS
SIAN	28.93	91.5	5 56	-1						
KUNMING	29.14	113.4	6 0	1						
KSARA	30.32	268.8	6 22	13	11 38	33			13 29	SS
PEKING	32.48	77.1	6 28	0						
APATITY	34.37	334.2	6 46	2	12 13	5				
KAJAANI	35.03	326.9	6 49	-1					7 55	
HELSINKI	35.24	319.7	6 51	-1						
NURMIJARVI	35.45	320.3	6 53	-1						
UZHGOROD	36.41	299.8	7 2	0					15 0	SS
SODANKYLA	36.63	331.9	7 2	-2					9 25	PCP
SOFIA	36.81	289.8	7 8	3					9 54	
WARSAW	36.90	306.0	7 6	0	12 55	8			8 32	PP
KRAKOW	37.77	302.5	7 14	1	13 6	6				
UMEA	38.14	325.0	7 16	0					15 49	SS
BELGRADE	38.33	294.0	7 20	2					9 37	PCP
BUDAPEST	38.76	298.5	7 23	2					8 49	PP
UPPSALA	38.85	318.4	7 22A	0	12 59	-17			8 52	PP
RACIBORZ	38.87	302.8	7 24	2					9 14	PPP
KIRUNA	39.03	331.3	7 23	-1					9 1	PP
YAKUTSK	39.48	38.2	7 25A	-2					13 29	
KARLSKRONA	39.89	312.6	7 31	0						
BRATISLAVA	39.90	300.0	7 32	1	13 19	-13			9 23	PCP
TROMSOE	40.07	333.8	7 31	-1						
PRUHONICE	41.21	303.2	7 43	1	13 55	3				
PRAGUE	41.27	303.3	7 44	2						
SKALSTUGAN	41.63	323.9	7 44	-1						
COPENHAGEN	41.69	312.0	7 46	0	14 6	7				
GOTEBORG	41.79	315.1	7 46	0						
COLLMBERG	41.95	305.4	7 48	0						
KASPERSKE H.	42.00	302.1	7 48	0					9 18	PP
LJUBLJANA	42.09	297.4	7 50	1					9 44	
TRIESTE	42.71	297.1	7 56	2	14 17	3			17 47	SS
JENA	42.90	305.1	7 55	-1	14 21	4			9 22	PP
MESSINA	43.86	286.1	8 3	0	14 34	3	8 12			
AQUILA	43.94	292.6	8 5	1					8 56	
PADOVA	44.05	297.3							8 54	
ROME	44.73	292.3	8 12	2	14 52	9			15 24	PPS
STUTTGART	44.84	302.6	8 12	1						
FLORENCE X.	44.97	295.2	8 6	-6	14 22	-25			17 57	SS
BERGEN	45.00	319.4							23 44	
HEIDELBERG	45.04	303.6	8 14	1						
WITTEVEEN	45.49	308.7	8 18	2						
STRASBOURG	45.85	302.7	8 20	1					10 10	PP
DOURBES	47.42	305.5	8 32	0	15 27	5				
MONACO	47.59	296.5	8 33	0						
ISOLA	47.70	297.2	8 33	-1						
Y.-SAKHLINSK	48.95	58.2	8 42	-1						
ABERDEEN	49.38	316.0							19 26	SS
DURHAM	49.74	312.9	8 50	0	16 45	51			19 47	SS
MATUSIRO	49.89	72.6	8 43	-8						
KEW	50.00	308.5	8 50A	-1						
FOLINIERE	50.99	305.2	8 57	-2						
BAGNERES	52.75	298.3	9 12	0						
ALERT	54.95	353.5	9 28	0						
TOLEDO	56.99	296.5	9 20	-23						

MOULD BAY	62.94	3.3	10	22	-2			
BROKEN HILL	68.86	227.0					9	35
COLLEGE	69.85	17.4	11	7	-1		11	41 PCP
BULAWAYO	73.46	223.5	11	28	-1			
BANDEIRA	78.37	238.6	11	58K	1			
SCHEFFERVLLE	78.76	337.7	11	59	0			
KIMBERLEY	82.50	221.5	12	19	0			
HALIFAX	86.51	330.7	12	40	1			
PENTICTON	89.52	8.4	12	53	0			
VICTORIA	89.82	11.0	12	56K	1			
CHARTERS TS.	90.83	115.9	13	0	0			
HUNGRY HORSE	90.97	4.8	13	1	1			
BUTTE	93.38	4.0	13	13	2			
FLAMING GRGE	98.58	2.0	13	36	1			
DUGWAY	99.16	4.7	13	39	2			
EUREKA	99.63	7.2	13	41	1		17	5
BOULDER CITY	103.20	6.7	13	41	-15		13	53
WICHITA MTS.	104.44	353.0	14	3	2		18	23 PP
ALBUQUERQUE	104.59	359.7	14	10	8			
SCOTT BASE	130.28	163.9	19	8	3			
SOUTH POLE	130.64	180.0	19	7	1			
BYRD STATION	140.40	176.5	19	33	9			
ARGENTINE I.	145.71	210.3	19	34	1			

AUGUST 6 1.H 35.M 35.S EPICENTRE 32.21 -41.07 DEPTH= 60.KM

A= 0.63907 B=-0.55694 C= 0.53048 D=-0.6570 E=-0.7539
G= 0.3999 H=-0.3485 K=-0.8477 HT= 1.1

DEPTH OF FOCUS= 0.004R

SE= 2.57

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
ANGRA DO HO.	12.98	56.5				5	42	15				
PONTA DELGDA	13.77	62.2	3	16	2	6	6	20				
HALIFAX	21.48	311.7	4	47K	1							
ST. KITTS	24.55	238.1	5	16	0							
ST. CLAUDE	24.71	234.2	4	51	-26	9	11	-21				
FORT FRANCE	25.26	231.1	5	25	3	9	49	8				
WESTON	25.99	301.6	5	29	0							
SAN JUAN	26.42	244.6	5	32	-1	9	55	-5	6	3		
ST. VINCENT	26.49	228.9	5	25	-9							
LISBON	26.71	67.0	5	36A	0	10	10	5			6	15 PP
SERRA PILAR	27.40	61.8	5	40K	-2	10	15	-1			6	28 PP
COIMBRA	27.40	63.8	5	36	-6	10	20	4				
FORDHAM	27.61	297.5	5	55	11	10	38	18				
PALISADES	27.65	297.8	5	44K	0	10	26	6				
SHAWINIGAN	28.16	309.8	5	48	-1							
M.BOUR	28.26	123.3	5	48	-2	10	24	-6				
BREBEUF	28.40	307.3	5	50K	-1	10	42	10			12	2 55
TRINIDAD	28.50	225.7	5	53	1	10	39	5			9	4 PCP
SCHEFFERVLLE	29.00	328.8	5	56K	0							
WASHINGTON	29.90	293.1	6	3	-1	10	58	2				
GEORGETOWN	29.90	293.1	6	5	1	11	7	11				
MALAGA	30.45	71.3	6	9K	0	11	13	8			7	15 PP
PENNSYLVANIA	30.62	296.8	6	11K	0							
TOLEDO	30.73	65.1	6	11	-1	11	15	6			7	11 PP
CHAPEL HILL	31.55	287.3	6	19	0							
ALMERIA	31.99	70.9	6	22A	-1	11	37	8	6	26	7	28 PP
LONDON ONT.	33.27	300.6	6	34A	0							
COLUMBIA	33.38	284.1	6	35	0	11	43	-8				
CLEVELAND	33.42	297.7	6	36K	1						7	57 PPP
ALICANTE	33.50	68.0	6	35	-1	12	1	9				
JERSEY	33.62	48.2	6	32	-5	11	40	-14				
BAGNERES	34.09	59.5	6	39	-2							
REYKJAVIK	34.11	14.9	6	41A	0							
KEW	35.36	44.9	6	52	0	12	26	5			8	9 PP
DURHAM	35.77	39.1	6	55K	0	12	36	9			8	21 PP
BLACK RIVER	36.01	255.8	6	58	1							
PARIS	36.48	50.0	7	1	0	12	43	5				
ABERDEEN	36.50	35.2	7	6A	4	12	45	6			8	45 PPP
GARCHY	36.61	52.7	7	3	1	12	51	11			8	15
BLOOMINGTON	37.23	293.8	7	8	0	13	3	13				
CHICAGO JSA.	38.01	298.3	7	15	1							
GALERAZAMBA	38.05	243.6	7	19	4							

DOURBES	38.07	48.3	7	14	-1	13	6	3		
BESANCON	38.57	53.1	7	18	-1					
DE BILT	38.82	45.3	7	25A	4	13	25	11	16	21 SS
ROSELEND	38.90	55.6	7	30	8					
BASLE	39.68	52.8	7	29	1	13	34	7		
C. GIRARDEAU	39.79	291.2	7	30K	1	13	38	9		
WITTEVEEN	39.86	44.5	7	31A	1					
STRASBOURG	39.90	51.2	7	30	0	13	39	9	9	0 PP
FLORISSANT	40.27	293.6	7	34K	1					
FUQUENE	40.47	235.9	7	35	0					
HEIDELBERG	40.61	50.0	7	36	0					
PAVIA	40.67	56.5	7	37	1	13	59	17	16	56 SS
STUTTGART	40.92	51.1	7	36	-2	13	55	10	16	55 SS
CHUR	40.97	54.0	7	41	2	13	53	7		
BOGOTA	41.31	235.3	7	40K	-2				8	18 PP
ROLLA	41.58	292.5	7	43K	-1	14	2	7		
PRATO	42.07	58.5	7	51	3	14	38	36		
CHINCHINA	42.16	237.3	7	37	-11					
FLORENCE X.	42.18	58.6	8	0	11	14	30	26	17	48 SS
PADOVA	42.58	56.2	7	52	0	14	20	10	9	32 PP
JENA	42.59	48.0	7	52	0	14	13	3	9	31 PP
CHEB	43.04	49.3	7	56	0				14	25
ROME	43.20	61.3	7	57K	0	14	27	8	9	46 PP
COLLMBERG	43.52	47.6				14	30	7	11	53
FAYETTEVILLE	43.68	290.3	8	1K	0					
COPENHAGEN	43.73	41.2	8	2	1	14	32	5		
KASPERSKE H.	43.77	50.8	8	1	-1	14	32	5	8	32
AQUILA	43.85	60.6	8	2	0	14	29	1		
GOTEBORG	43.85	38.3	8	3	1					
TRIESTE	43.89	55.8	8	2	-1	14	36	7	17	51 SS
LAWRENCE	44.03	294.6	9	4	60					
LJUBLJANA	44.42	55.2	8	6	-1				9	55
TULSA	44.99	290.4	8	12	1	14	53	8		
MANHATTEN	45.01	295.1	8	11	-1	14	52	7		
ZAGREB	45.44	55.4	8	16	1	14	50	-1		
SKALSTUGAN	45.51	30.2	8	15	-1					
KARLSKRONA	45.55	40.9	8	15	-1					
MESSINA	46.04	66.1	8	18	-2	14	56	-4	8 29	9 48 PP
HOUSTON	46.24	281.9	8	26	5					
DALLAS	46.50	286.5	8	25	2					
RACIBORZ	46.78	49.5	8	27	1	15	17	7	10	13 PP
UPPSALA	47.14	36.0	8	27	-1	15	19	4	10	6 PCP
WICHITA MTS.	47.49	289.5	8	31	0	15	35	15	10	24 PP
KRAKOW	47.90	49.5	8	34	0	15	28	2	10	22 PP
WARSAW	48.52	46.5	8	40	1	15	44	9	10	33 PP
BELGRADE	48.68	56.4	8	36K	-4				11	5 PPP
UMEA	49.01	31.0	8	39	-4	15	48	6		
TIMISOARA	49.10	55.1	8	45	1	15	51	8		
RAPID CITY	49.20	302.7	8	44	0					
UZHGOROD	49.53	51.2	8	47	0					
TROMSOE	49.81	23.4	8	48	-1					
RESOLUTE	49.88	343.7	8	49K	-1					
KIRUNA	49.89	25.9	8	48	-2	15	59	5	10	43 PP
NORD	50.34	4.5	8	52	-1					
LUBBOCK	50.39	289.0	8	53	-1					
LWOW	50.56	49.5	8	55	0	16	13	10		
NURMIJARVI	50.70	35.7	8	54	-2	16	10	5	10	48 PP
HELSINKI	50.84	36.1	8	56	-1				10	13 PCP
ALERT	50.96	356.5	8	56	-2					
SOFIA	51.07	58.7	8	59	0	16	19	9	10	48 PP
SODANKYLA	52.15	27.0	9	5	-2	16	32	7	10	18 PCP
KAJAANI	52.31	31.2	9	8	0					
ATHENS	52.39	64.5	9	8A	-1	16	37	9		
KEVO	52.60	24.0	9	7	-3					
BUCHAREST	52.72	56.1	9	14A	3				16	36
PULKOVO	53.53	36.6	9	16	-1				16	49 PS
ALBUQUERQUE	53.66	292.0	9	18	0				10	47
KISHINEV	54.11	52.5	9	17K	-4				19	13
FLAMING GRGE	54.30	299.9	8	52	-31			9 5	9	55 PCP
BOZEMAN	54.43	305.9	9	24	0	17	6	10		
APATITY	54.78	26.9	9	24K	-2	16	53	-8	11	33 PP
HUANCAYO	54.88	222.3	9	32	5					
BUTTE	55.39	306.6	9	31	0					
PRICE	55.69	298.7	9	33K	0					
HUNGRY HORSE	55.88	309.6	9	33	-1					
SALT LAKE C.	56.15	300.3	9	35	-1					
MOULD BAY	56.20	343.6	9	36K	0					
BANFF	56.29	313.2	9	35K	-2					

AREQUIPA	56.49	215.6	9	36	-2					
DUGWAY	57.01	299.9	9	42K	0				11	48 PP
GLEN CANYON	57.04	295.9	9	43	1					
TUCSON TELE.	57.86	290.4	9	47	-1				10	40 PCP
MOSCOW	57.90	40.9	9	47	-1				17	50 PS
TUCSON	57.98	290.3	9	48	-1	17	48	5		
SIMFEROPOL	58.17	53.9	9	49K	-1				17	55 PS
PENTICTON	59.25	311.7	9	57	-1					
EUREKA	59.55	299.9	10	0	0					
BOULDER CITY	59.83	295.7	9	59	-3					
SEATTLE	61.43	310.5							10	36
VICTORIA	61.88	311.7	10	14A	-2					
ANTOFAGASTA	62.27	210.5	10	17	-1					
RENO	62.33	301.1	10	19K	0					
ALBERNI	62.53	312.8	10	13	-7					
PASADENA	63.04	294.9	10	24	1	18	59	11		
KSARA	63.05	65.5	10	24	0	18	58	10	12	43 PP
JERUSALEM	63.31	67.8	10	26	1					
MINERAL	63.34	302.5	10	25K	0					
PRIEST	64.18	297.8	10	31K	0					
CALISTOGA	64.66	301.0	10	35K	1					
BERKELEY	64.72	300.1	10	35K	1	19	23	15	12	45 PP
SITKA	65.80	323.3	10	45	4					
LUANDA	65.94	118.5	10	44K	2					
MAKHACH-KALA	67.93	52.4	10	55	0	19	53	6		
COLLEGE	67.95	333.8	10	55	0	19	56	8	13	17 PP
GORIS	68.54	56.1	10	59A	0	20	0	5		
SVERDLOVSK	69.60	35.1	11	5K	0				20	16 PS
BANDEIRA	70.02	123.3	11	10K	2				12	12
SANTA LUCIA	71.00	205.9	11	13	-1					
TEHERAN	73.81	57.8	11	31	1	21	7	12		
LWIRO	74.29	102.9	11	34K	1				21	59
SHIRAZ	77.59	62.8	11	51K	-1	21	37	0		
BROKEN HILL	81.05	113.2	12	11K	1					
TASHKENT	82.71	45.4	12	19K	0					
SEMIPALATNSK	82.78	33.4	12	20	1					
BULAWAYO	84.55	117.7	12	30	2					
YAKUTSK	85.81	4.3	12	36K	2	23	9	8		
QUETTA	87.81	55.5	12	47	3	23	29	9	16	9 PP
WARSAK DAM	88.60	50.1	12	48	0					
IRKUTSK	90.59	20.4	12	57K	0					
ESEN BULAK	92.77	28.0							14	6
ULAN-BATOR	95.21	21.0	13	21	3					
NEW DELHI	95.78	51.1	13	17K	-4	23	56	6	16	38 PP
HONOLULU	99.65	302.6	17	47	248	24	31	21	32	23 SS
VLADIVOSTOK	104.76	5.3							18	18 PP
MATUSIRO	111.60	0.6							28	45 PS
TUKUBASAN	111.92	359.0							19	34 PP
SCOTT BASE	132.63	187.7	19	12	4					
WILKES	141.84	161.9	19	27	2				41	7 SS
DUMONT	145.50	180.8	19	32	0					
TUAI	148.37	247.2	19	43	7				19	49 PKP2
KARAPIRO	149.63	248.9	19	44	6				19	50 PKP2
WELLINGTON	150.06	242.2	19	42	3					
HONIARA	150.12	314.7	19	46	7					
TARATA	150.52	246.3	19	46	6					
CHARTERS TS.	166.26	329.7	20	3	5					
BRISBANE	167.05	288.2	20	1	2				45	14
RIVERVIEW	169.61	257.8	20	5	5				25	2 PP
CANBERRA	171.06	247.0	20	6	5					

AUGUST 6 8.H 41.M 10.S EPICENTRE -58.15 -25.40 DEPTH= 0.KM

A= 0.47904 B=-0.22746 C=-0.84781 D=-0.4289 E=-0.9033
G=-0.7659 H= 0.3637 K=-0.5303 HT= -8.3

SE= 2.16

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
ARGENTINE I.	19.47	232.4	4	33	2								
SOUTH POLE	32.03	180.0	6	29	-1								
BYRD STATION	34.09	198.1	6	47	-1						16	29	
MAWSON	37.89	141.4	7	18K	-2						8	47	PP
HERMANUS	37.91	71.0									13	37	PCS
SANTA LUCIA	38.99	289.3	7	30	0						11	19	
SCOTT BASE	44.05	183.7	8	14	3								

KIMBERLEY	45.26	71.7	8	21	0					
CAPE HALLETT	49.38	186.2	8	52	-1					
WILKES	51.54	159.0	9	9	-1	16	25	-5	9 25	9 32 *SP
BANDEIRA	51.92	50.2	9	14K	2					
AREQUIPA	53.73	301.0	9	26	0					
BULAWAYO	54.34	69.3	9	30	0					
DUMONT	55.02	173.0	9	33	-2					
BROKEN HILL	59.13	65.7	10	4	-1					
HUANCAYO	59.35	299.5	10	11	5					
LWIRO	69.94	59.6	11	16A	1					
BOGOTA	73.67	308.7	11	39	2					
TRINIDAD	74.57	323.2	11	44K	2					
GRENADA	75.99	323.3	11	50	-1					
ST. VINCENT	76.90	324.1	11	50	-6					
FORT FRANCE	78.33	324.7	12	6	3					
ST. KITTS	81.28	324.1	12	20	1					
SAN JUAN	83.34	321.4	12	29	-1					
MUNDARING	84.64	148.0	12	41	4					
ADELAIDE	86.28	167.0	12	45	0					
CANBERRA	86.77	175.4	12	47A	0				13 4	13 9 *SP
HOPE	86.86	311.9	12	50	2					
BENI ABBES	90.06	20.0	13	4	1					
COLUMBIA	102.90	315.3	18	16	255					
SHIRAZ	108.70	64.0								19 19
C. GIRARDEAU	109.11	310.6	18	57	777					
FLORISSANT	110.72	310.8	18	53	19					
BREBEUF	110.74	325.9	19	2	27					
WICHITA MTS.	110.75	302.5	18	35	0	25	9	-6		19 9 PP
TEHERAN	113.23	59.5								21 32
ALBUQUERQUE	114.57	296.8	18	43	1					19 35 PP
SCHEFFERVLLE	117.46	334.5	18	47	-1					
PASADENA	119.67	287.6	18	53	1					
NEW DELHI	120.35	84.0	18	52A	-1					
FLAMING GRGE	120.75	298.7	18	23	-31					
DUGWAY	121.78	295.8	18	56A	0					
UPPSALA	122.42	24.1	18	57	0					
PRIEST	122.49	287.1	19	0A	3					
EUREKA	122.75	293.0	18	59	1					
CHATRA	124.23	93.7	19	1	0					
HELSINKI	124.41	27.8	19	1	0					19 28
NURMIJARVI	124.63	27.5	19	0	-2					
BERKELEY	124.64	287.3	19	3A	1					
SKALSTUGAN	124.78	19.4	19	1	-1					
BOZEMAN	125.19	301.2	19	5	2					
CALISTOGA	125.39	287.6	19	5K	2					
SHILLONG	125.69	98.7	18	36A	-28					
BUTTE	126.15	300.5	19	6	2					
MINERAL	126.20	289.7	19	6K	1					
UMEA	126.54	23.2	19	4	-1					
KAJAANI	128.44	26.7	19	8	-1					22 22 SKP
HUNGRY HORSE	128.55	301.5	19	9	0					22 21
KIRUNA	130.10	20.8	19	12	0					22 27 SKP
SODANKYLA	130.96	23.8	19	12	-2					22 29 SKP
BANFF	131.26	303.1	19	14	0					
PENTICTON	131.81	298.9	19	16	1					
KEVO	133.02	22.2	19	17	-1					
VICTORIA	133.04	295.7	19	19	1					
ALBERNI	134.22	295.6	19	22	2					
RESOLUTE	140.17	337.1	19	22	-9					
ALERT	141.69	352.7	19	28	-5					
MOULD BAY	146.29	334.5	19	43	2					
COLLEGE	152.63	308.4	19	50	-1					

AUGUST 6 20.H 52.M 2.S EPICENTRE -26.66-177.24 DEPTH= 87.KM

A=-0.89383 B=-0.04316 C=-0.44632 D=-0.0482 E= 0.9988
G= 0.4458 H= 0.0215 K=-0.8949 HT= 2.9

DEPTH OF FOCUS= 0.008R

SE= 2.83

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SUVA	9.37	333.8	2	10	-4	4	8	10				
ONERAHI	11.57	216.3	2	47	4	4	58	7				
KARAPIRO	12.78	206.7	2	54	-5						3	7

TUAI	12.99	199.9	2	52	-10	5	13	-12				
CHATEAU	13.89	204.0	3	7	-7	5	41	-5				
TARATA	14.33	207.2	3	17	-3				3	54		
WELLINGTON	16.00	202.3				6	16	-19				
COBB RIVER	16.60	207.5				6	34	-14				
KAIMATA	18.34	207.5	4	17	8	7	17	-11				
GEBBIES PASS	18.88	203.2	4	8	-8	7	26	-14				
BRISBANE	26.69	261.6	5	33	0	9	36	-24				
HONIARA	27.56	304.2	5	39	-2				13	12		
RIVERVIEW	28.15	247.6	5	46A	0	10	24	1	6	34	PP	
CANBERRA	30.09	245.0	6	3A	0	11	4	10	7	21	PPP	
SAVANNAH	32.78	233.6	6	25	-2				9	8		
MOORLANDS	32.98	232.3	6	27	-1							
TOOLANGI	33.20	241.5	6	34	4				7	52	PP	
TARRALEAH	33.46	232.8	6	31	-1							
CHARTERS TS.	34.06	273.2	6	39A	1	12	0	4				
PORT MORESBY	37.79	290.3	7	11K	2	13	4	11	9	26	PCP	
ADELAIDE	38.47	246.6	7	14A	-1	12	58	-5	16	12		
CAPE HALLETT	46.21	185.3	8	18	0							
DUMONT	47.84	201.4	8	26	-5	15	17	-3				
HAWAII V.OB.	50.53	27.2	8	51	0	16	7	10				
DARWIN	50.64	275.8	8	52	0	16	4	5				
HONOLULU	51.16	23.1	8	57	1	16	14	8	10	30	PCP	
SCOTT BASE	51.80	184.3	9	0	-1				16	24		
MUNDARING	57.47	247.7	9	39	-3	17	32	1				
PERTH	57.79	247.6	9	43	-1				24	27		
BYRD STATION	58.48	170.0	9	46	-3	17	52	8	24	28		
WILKES	58.77	206.7	9	47A	-4	17	43	-5	14	37	PCS	
SOUTH POLE	63.49	180.0	10	21	-2							
MANILA	72.63	296.8	11	13	-7	20	33	-3				
LEMBANG	73.71	270.5	11	26A	0	20	51	3				
BAGUIO CITY	74.02	298.0	11	29	1	21	2	10				
TUKUBASAN	74.36	325.3	11	28K	-2	20	58	2	22	7	PPS	
TANGERANG	74.88	270.6	11	32A	-1							
ARGENTINE I.	75.06	156.3	11	30	-4							
MATUSIRO	75.58	324.3	11	36A	-1	21	12	3				
ABUYAMA	75.76	321.5	11	38A	0							
MAWSON	76.03	200.0	11	38K	-1	21	16	2				
Y.-SAKHLINSK	81.77	333.6	12	11A	1	22	21	6				
PETROPAVLOVK	82.08	345.6	12	12	0	22	22	4				
PRIEST	82.13	43.0	12	13K	1							
HONG KONG	82.29	299.5	12	8	-5	22	27	7				
BERKELEY	82.32	40.8	12	14A	1	22	31	11	12	30	13	21 PCP
PASADENA	82.41	45.9	12	14	0	22	34	13				
CALISTOGA	82.65	40.1	12	15K	0							
CANTON	83.36	299.8	12	20A	1							
VLADIVOSTOK	83.71	325.2	12	22	2	22	37	3				
NANKING	84.40	309.9	12	25A	1							
RENO	84.86	40.9	12	27A	1							
BOULDER CITY	85.69	46.1	12	32	2							
EUREKA	87.12	42.8	12	38	1	23	2	-5			38 32	PKPPKP
CHANGCHUN	87.68	322.4	12	41	1	23	20	7			23 2	SKS
SANTA LUCIA	88.22	126.7	12	41	-1	23	23	5			29 19	SS
GLEN CANYON	88.38	46.9	12	45	2							
VICTORIA	88.98	32.5	12	47A	1							
DUGWAY	89.49	43.7	12	49A	1							
MAGADAN	89.85	344.4	12	50A	0	23	25	-8				
PRICE	90.40	45.1	12	54	1							
ALBUQUERQUE	90.72	50.9	12	54	0				14	1		
PEKING	90.74	315.2	12	55A	1	23	49	8			23 19	SKS
PENTICTON	91.37	33.6	12	57	0							
FLAMING GRGE	92.04	44.6	12	59	-1							
SIAN	92.51	307.2	13	5A	3							
KUNMING	92.75	296.6	13	6	3	24	1	3			23 36	SKS
BUTTE	93.06	39.1	13	5	0							
BOZEMAN	93.72	40.0	13	9	1							
COLLEGE	94.06	12.1	13	8	-1						23 40	
CHENGTU	94.36	302.0	13	13A	2	24	11	-1			23 42	SKS
BANFF	94.57	33.8	13	11A	-1							
WICHITA MTS.	96.20	54.3	13	19	0	23	54	8			17 7	PP
LANCHOW	97.03	306.7	13	25	2	24	25	34			23 54	SKS
YAKUTSK	98.04	337.6	13	27	-1	23	57	1				
MANHATTEN	99.67	51.1	13	35	0	24	12	8				
CHITTAGONG	100.51	289.7	13	16	-23							
SHILLONG	101.78	292.7	13	42	-2							
ROLLA	102.44	53.8				24	23	5				
BOGOTA	103.82	91.8	13	56	3	24	42	18			18 10	PP
FLORISSANT	103.90	53.5	13	48	-6	24	25	1				

C. GIRARDEAU	103.94	55.2				24	28	4			
ST. LOUIS 1	103.94	53.7				24	28	4			
FUQUENE	104.50	91.1				24	52	25		27	29 PPS
ESEN BULAK	106.53	313.9	18	27	777	24	39	1			
NEW DELHI	115.06	290.7	18	31A	0						
GRAHAMSTOWN	116.20	202.1	18	34K	1						
FORDHAM	116.59	55.6	18	30	-4					25	21
PALISADES	116.61	55.4							13	47	
BREBEUF	117.74	50.6	18	36	0					29	44 PPS
LAHORE	118.29	293.1	18	43	6						
KIMBERLEY	120.99	202.6	18	43A	1						
WARSAK DAM	121.16	295.2	18	46	3						
ANDIJAN	121.81	303.1	18	45	1	25	37	3			
SCHEFFERVLLE	123.02	40.3	18	45	-1						
QUETTA	124.10	289.7	18	50	2						
HALIFAX	124.66	52.7	18	50	1						
BULAWAYO	127.15	210.9	18	55A	1						
SVERDLOVSK	129.38	323.0	18	59K	1	26	4	7			
BROKEN HILL	132.10	214.5	19	5A	1						
VANNOVSKAYA	132.51	298.1	19	5	1						
KEVO	134.62	348.4	19	4	-4					21	28
APATITY	135.05	343.9	19	8	-1					22	39 PKS
SHIRAZ	136.30	285.9	19	1	-10					21	56 PP
SODANKYLA	136.74	346.8	19	3	-9					21	54 PP
BANDEIRA	137.43	195.2	19	4K	-9					22	0 PP
KIRUNA	137.44	350.2	19	5	-8					22	49 PKS
TEHERAN	137.79	294.7	19	17	3					22	48 PP
KAJAANI	139.25	343.5	19	9	-8						
UMEA	141.14	347.7	19	14A	-6					22	21 PP
MOSCOW	141.57	328.6	19	16	-5					22	55 PKS
GORIS	141.67	300.7	19	17K	-4						
LWIRO	141.82	225.2	19	18A	-3					35	19
SKALSTUGAN	142.56	353.0	19	19	-4					21	12
NURMIJARVI	143.01	342.1	19	20	-4					22	32 PP
HELSINKI	143.20	341.6	19	21	-3						
UPPSALA	145.27	346.9	19	28A	1					22	59 PP
BERGEN	146.23	357.7	19	31	2						
GOTEBORG	148.30	350.6	19	33A	1						
SIMFEROPOL	148.97	314.2	19	34	0						
KARLSKRONA	149.10	346.0	19	34	0						
COPENHAGEN	150.17	349.0	19	36A	1						
KSARA	150.60	292.1	19	39	3					23	19 PP
KISHINEV	151.10	321.5	19	37	0						
JERUSALEM	151.28	288.0	19	39	2						
LWOW	151.67	330.3	19	39	1						
IASI	151.69	322.9	19	45	7					21	31
DURHAM	151.74	5.3	19	39	1					23	32 PP
KRAKOW	153.18	335.1	19	49	9						
RACIBORZ	153.78	337.2	19	43	2					23	35 PP
BUCHAREST	154.17	319.3	19	37	-4					23	10 PP
COLLMBERG	154.19	345.2	19	42A	1				23	37	
DE BILT	154.53	356.5	19	48	6						
JENA	154.85	346.8	19	43	1					23	40 PP
PRAGUE	154.96	342.1	19	44	2					23	43
PRUHONICE	155.01	341.8	19	43	1						
KEW	155.12	4.6	19	43	1					23	43 PP
BUDAPEST	155.60	332.6	19	44	1	26	27	-12		24	1 PP
BRATISLAVA	155.78	336.2	19	42	-1					23	48
KASPERSKE H.	156.05	342.3	19	44K	1					23	48 PP
FELDBERG	156.08	351.0	19	47	3						
DOURBES	156.56	357.0	19	15	-29						
SOFIA	156.81	318.9	19	44	-1					23	55
STUTTGART	157.35	348.8	19	46	1					23	54 PP
STRASBOURG	157.77	351.2	19	49	3					32	37
FOLINIERE	157.79	5.7	19	47	1						
PARIS	157.89	0.5	19	46	0					23	58 PP
LJUBLJANA	158.50	337.2	20	47	60					24	3
ATHENS	159.05	307.7	19	48	1						
TRIESTE	159.12	338.0								22	8
BESANCON	159.29	353.8	19	49	1					20	27
GARCHY	159.42	359.4	19	49	1					21	5 PP
PADOVA	159.92	341.1								20	35
AQUILA	162.09	333.6	19	54	3	27	12	27		24	28 PP
ISOLA	162.18	349.9	19	52	1						
MONACO	162.56	348.7	19	51	0					20	45
ROME	162.83	334.7	19	52A	1					24	28 PP
MESSINA	164.24	320.0	19	54	1					24	35 PP
TOLEDO	165.65	21.6	19	57	3	26	48	1		24	43 PP
TORTOSA	165.76	7.0								21	25

GRANADA	168.21	25.7	19	59	3						24	57	PP
MALAGA	168.27	29.5	19	58A	2						24	56	PP
ALMERIA	168.91	22.4	19	56A	0						25	3	PP
BENI ABBES	174.45	50.5	20	1	2						25	28	PP

AUGUST 9 4.H 21.M 54.5 EPICENTRE 6.81 -73.02 DEPTH= 162.KM

A= 0.29003 B=-0.94974 C= 0.11779 D=-0.9564 E=-0.2921
G= 0.0344 H=-0.1127 K=-0.9930 HT= 6.9

DEPTH OF FOCUS= 0.020R

SE= 1.07

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
FUQUENE	1.51	208.0	0	31	0								
BOGOTA	2.41	205.7	0	43K	2	1	13	0					
CHINCHINA	3.17	234.9	0	50K	-1	1	21	-8					
GALERAZAMBA	4.53	330.7	1	8K	0	2	4	3					
BALBOA HTS.	6.82	288.7	1	36	-3	2	49	-6					
CARACAS	7.05	58.2	1	41K	-1	2	58	-3					
HOPE	11.70	342.2	2	44	1	4	42	-9					
TRINIDAD	12.10	70.8	2	46	-2	5	3	3					
SAN JUAN	13.32	29.7	3	1	-2	5	19	-9			11	50	
FORT FRANCE	14.06	55.0	3	15	2	5	55	10					
ST. CLAUDE	14.38	49.5	3	18	1	6	0	8					
ST. KITTS	14.51	42.9	3	18	0								
HUANCAYO	18.88	187.0	4	11	1								
AREQUIPA	23.17	176.3	4	53	0								
COLUMBIA	28.05	345.7	5	39	1								
GEORGETOWN	32.16	354.1	6	15	1								
WASHINGTON	32.16	354.1	6	15	1								
C. GIRARDEAU	33.89	336.0	6	29A	0								
FORDHAM	33.90	358.8	6	29	0	11	41	0					
PALISADES	34.06	358.8	6	31	1	11	47	4					
BLOOMINGTON	34.45	341.3	6	35A	1								
FAYETTEVILLE	35.00	329.3	6	38A	0						9	7	
ST. LOUIS 1	35.30	336.4	6	41A	0								
ROLLA	35.38	333.8	6	43A	1								
FLORISSANT	35.50	336.3	6	43	0								
TULSA	35.70	327.4	6	44	0	12	8	0					
WICHITA MTS.	36.42	323.2	6	50A	0	12	17	-2	7	27	9	12	PCP
LONDON ONT.	36.79	350.0	6	55K	1								
BREBEUF	38.55	359.3	7	9A	1	13	58	67	8	3	9	54	PPP
HALIFAX	38.55	10.8	7	9A	1								
SHAWINIGAN	39.59	0.3	7	18A	1								
TUCSON TELE.	43.30	311.0	7	44	-3	14	3	2			13	10	
TUCSON	43.34	310.8	7	47	0	14	8	6			13	10	
GLEN CANYON	46.18	316.2	8	12	2								
FLAMING GRGE	46.94	322.1	8	16	0								
PRICE	47.08	319.7	8	18A	1								
BOULDER CITY	47.99	313.3	8	25	1								
SCHEFFERVLLE	48.14	4.8	8	25A	0								
DUGWAY	48.69	319.3	8	29A	0								
PASADENA	49.71	309.6	8	37	0								
EUREKA	50.42	316.8	8	43	0								
BOZEMAN	50.77	326.1	8	45	0								
BUTTE	51.83	325.6	8	53	0								
PRIEST	52.36	310.9	8	58K	1								
RENO	53.10	315.2	9	3	0								
LICK	53.54	312.0	9	7A	1								
BERKELEY	54.19	312.3	9	11A	0						10	14	
MINERAL	54.69	315.4	9	13A	-1								
CALISTOGA	54.71	313.1	9	14A	0								
BANFF	56.48	329.3	9	24A	-3								
PENTICTON	57.62	325.7	9	34A	-1								
VICTORIA	59.41	323.5	9	47A	-1								
ALBERNI	60.58	323.8	9	56	1								
MALAGA	68.84	53.4	10	48K	-1						11	33	
RESOLUTE	68.99	353.9	10	48A	-2								
TOLEDO	69.55	50.0	10	52	-1						11	33	
SCORESBY SD.	71.29	16.0	11	4	1								
BAGNERES	73.09	47.1	11	13	-1								
FOLINIERE	73.41	41.2	11	16	0								
MOULD BAY	73.82	349.6	11	18A	0								
PARIS	75.37	41.4	11	26	-1								

GARCHY	75.59	43.0	11 28	0		12 8	
ALERT	75.80	1.4	11 30A	1			
COLLEGE	77.43	335.0	11 38	-1		14 33	PP
STRASBOURG	78.83	41.9	11 46	0			
STUTTGART	79.84	41.8	11 51	-1	12 31		
JENA	81.35	39.6	12 0	0	12 43	12 58	
SKALSTUGAN	81.85	26.8	12 3	1			
COLLMBERG	82.24	39.2	12 4K	0	12 49		
KASPERSKE H.	82.67	41.4	12 6	0		12 45	
PRUHONICE	83.27	40.5	12 9A	0			
LJUBLJANA	83.44	44.5	12 11	1		12 51	
TROMSOE	84.35	20.6	12 14	-1			
UPPSALA	84.49	30.5	12 15	-1			
KIRUNA	85.05	22.4	12 19A	1			
UMEA	85.38	26.4	12 20	0			
KEVO	87.12	20.1	12 27	-1			
SODANKYLA	87.47	22.5	12 29	-1			
NURMIJARVI	87.90	29.4	12 34	2			
HELSINKI	88.11	29.7	12 35	2			
KAJAANI	88.59	25.6	12 36	1	13 19		
BYRD STATION	89.81	187.3	12 40	-1			
SOUTH POLE	96.76	180.0	13 13	0			
BROKEN HILL	102.76	103.2	13 31	-9		14 27	
SHIRAZ	116.39	52.3	18 16A	-8			
QUETTA	126.83	44.1	18 47	3			
WARSAK DAM	127.35	37.3	18 48	3			
CANBERRA	132.15	227.6	18 57	3			
NEW DELHI	134.58	37.8	19 OK	1			
CHARTERS TS.	139.70	246.9	19 4	-4			
HONG KONG	150.23	346.5	19 32	6		19 41	PKP2
MUNDARING	153.53	197.8	19 33	2			

AUGUST 10 21.H 3.M 56.S EPICENTRE 49.49 -27.97 DEPTH= 5.KM

A= 0.57587 B=-0.30587 C= 0.75817 D=-0.4691 E=-0.8832
G= 0.6696 H=-0.3556 K=-0.6521 HT= -5.2

SE= 2.09

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PONTA DELGDA	11.88	171.1	2 54	0				
REYKJAVIK	15.03	10.3	3 38A	3				
SERRA PILAR	15.96	114.3	3 43A	-4	6 42	-3		3 59 PP
COIMBRA	16.65	116.6	3 54	-2				4 16 PPP
JERSEY	16.85	81.2	4 24	25	7 45	40		
DURHAM	16.99	61.8	4 OK	0	7 20	11		
ABERDEEN	17.18	53.6	4 0	-3	7 20	7		
LISBON	17.24	121.6	4 7	4	7 23	9		
KEW	17.67	73.0	4 7	-2	7 32	8		
TOLEDO	19.47	110.5	4 30K	-1	8 15	10		4 47 PP
PARIS	19.88	80.3	4 35	0	8 22	8		
BAGNERES	20.40	97.6	4 38	-3				
GARCHY	20.66	84.3	4 42	-2	8 40	10		6 47
DOURBES	20.95	75.9	4 44	-3				5 6 PP
DE BILT	21.02	70.2	4 48	1	8 48	11		
SCORESBY SD.	21.25	5.6	4 51	1	8 55	14		
MALAGA	21.32	117.9	4 50	0	8 56	13		5 8 PP
GRANADA	21.47	115.8	4 52A	0	8 55	9		5 20 PP
TORTOSA	21.77	102.6	4 53	-2	9 0	9		
WITTEVEEN	21.85	68.0	4 56	0				
ALMERIA	22.36	114.8	5 OA	-1	9 9	7		5 27 PP
BESANCON	22.56	82.7	5 1	-2				6 16
ALICANTE	22.59	109.1	5 0	-3	9 12	6		5 33 PP
NEUCHATEL	23.27	82.7	5 9	-1				
STRASBOURG	23.32	78.5	5 12	2	9 27	8		10 10 SS
FELDBERG	23.35	74.2	5 14	3				
BASLE	23.50	81.1	5 10	-2	9 33	10		
HEIDELBERG	23.71	76.1	5 14	0				
SCHEFFERVLLE	24.16	297.6	5 18A	0				
TUBINGEN	24.16	78.0	5 18	0				
EBINGEN	24.20	78.9	5 18	-1				
STUTTGART	24.23	77.4	5 18	-1	9 47	12		
ISOLA	24.39	89.1	5 19	-2				
HALIFAX	24.60	272.2	5 22A	-1				
RAVENSBURG	24.74	79.5	5 24	0				

GOTEBORG	24.77	55.4	5	21	-3							
MONACO	24.83	89.8	5	17	-8							
COPENHAGEN	25.04	60.2	5	27K	0	10	11	22				
JENA	25.15	71.5	5	27	-1	9	58	7	5	37	5 58	PP
PAVIA	25.37	85.5	5	33	3	10	38	44				
SKALSTUGAN	25.75	41.7	5	33	-1						6 5	PP
COLLMBERG	25.95	70.2	5	34	-1	10	2	-2				
KASPERSKE H.	26.85	74.7	5	42K	-2						6 12	
PADOVA	27.03	83.3	5	46	1	10	26	4			8 6	
PRAGUE	27.12	72.4	5	46	0	10	31	8			6 19	
PRUHONICE	27.22	72.5	5	45	-2	10	28	3				
BENI ABBES	27.47	125.2	5	49	0	10	56	27			7 17	
UPPSALA	27.78	50.7	5	51	-1	10	52	18				
TRIESTE	28.15	81.7	5	55	-1	10	43	3			6 51	PP
LJUBLJANA	28.49	80.5	5	57A	-2						6 47	PP
ROME	28.97	89.6	6	1	-2	11	0	7			7 2	PP
UMEA	29.28	42.6	6	6	0	10	58	0				
AQUILA	29.36	88.1	6	6	0	11	3	4			7 3	PP
BRATISLAVA	29.37	75.1	6	4	-3						8 27	
RACIBORZ	29.45	71.0	6	7	0				6	14	6 48	PP
ZAGREB	29.52	80.1	5	26	-42							
TROMSOE	29.98	30.8	6	12	0							
KIRUNA	30.03	34.5	6	11	-2	10	57	-13			7 11	PP
HURBANOVO	30.17	75.2	6	40	26						7 37	PP
KRAKOW	30.53	70.3	6	16	-1							
WARSAW	30.58	65.8	6	17	0						7 22	PP
BREBEUF	30.73	280.2	6	18K	-1	11	26	5			13 24	SS
BUDAPEST	30.82	75.5	6	17	-2	11	16	-6			7 15	PP
NURMIJARVI	31.28	49.2	6	22	-1	11	29	-1			7 16	PP
THULE	31.33	342.9	6	27	3							
HELSINKI	31.45	49.9	6	26	1						9 16	PCP
SODANKYLA	32.30	36.2	6	31	-1						9 10	PCP
UZHGOROD	32.46	71.9	6	33	-1							
KAJAANI	32.59	42.4	6	32	-3						8 2	
KEVO	32.76	31.8	6	33	-3						7 23	
BELGRADE	32.80	79.4	6	35K	-2	11	57	4			7 41	PP
MESSINA	32.92	93.3	6	36	-2	11	53	-2	6	56	7 53	PP
PALISADES	32.99	272.9	6	38	0	11	46	-10				
LWOW	33.11	69.1	6	39	0	11	57	-1				
PULKOVO	34.17	50.0				12	18	3				
APATITY	34.93	36.1	6	54K	-1	12	27	1				
SOFIA	35.63	81.0	6	59	-2	12	35	-2			8 23	PP
PENNSYLVANIA	35.67	275.3	7	1A	-1							
LONDON ONT.	36.69	280.7	7	10K	0							
RESOLUTE	36.98	336.0	7	13	0							
KISHINEV	37.14	71.5	7	12K	-2							
CLEVELAND	37.69	278.6	7	18A	-1						8 44	PPP
ATHENS	38.38	87.4	7	24K	0							
MOSCOW	38.96	55.0	7	29	0	13	27	-1				
SIMFEROPOL	41.36	71.7	7	49K	0	14	6	2				
COLUMBIA	41.62	268.6	7	47	-4							
BLOOMINGTON	42.12	278.8	7	56	1	14	14	-1				
MOULD BAY	42.91	339.4	8	1	-1							
DUBUQUE	42.99	285.5	8	3	1	14	30	2				
SAN JUAN	43.57	238.3	8	3	-4							
AMDERMA	44.59	29.7	8	14K	-1	14	53	2				
ST. LOUIS 1	44.83	280.5	8	16	-1	14	54	-1				
C. GIRARDEAU	45.15	278.6	8	18	-2							
ROLLA	46.33	280.8	8	28A	-1	15	19	3				
TRINIDAD	47.61	227.2	8	40	1	15	44	10				
MANHATTEN	48.54	285.1	8	44	-2	15	52	5				
KSARA	48.76	83.7	8	47	-1	15	55	5			10 7	PP
FAYETTEVILLE	48.88	280.3	8	47A	-2							
JERUSALEM	49.63	86.2	8	55A	0							
TIFLIS	49.67	69.7	8	56	1	16	10	7				
TULSA	50.01	281.2	9	0	2	16	4	-4			10 48	PP
SVERDLOVSK	50.05	45.8	8	56K	-2							
WICHITA MTS.	52.55	281.8	9	15	-2	16	44	1			11 21	PP
BANFF	52.66	307.7	9	16	-2							
HUNGRY HORSE	53.51	304.1	9	22	-2						10 29	
BUTTE	54.08	301.1	9	27	-1							
GALERAZAMBA	54.87	242.0	9	42	8	17	27	13				
FLAMING GRGE	55.35	294.4	9	36	-2						10 36	
PENTICTON	55.87	307.8	9	40K	-1							
COLLEGE	56.84	333.7	9	47	-1	17	44	4				
SALT LAKE C.	56.91	295.7	9	47	-2							
PRICE	57.03	294.0	9	48A	-2							
ALBUQUERQUE	57.37	287.1	9	51	-1						10 32	PCP
TEHERAN	57.40	71.6	9	52	0	17	52	4				

DUGWAY	57.83	295.7	9	54A	-1									
VICTORIA	58.32	308.9	9	56	-3									
FUQUENE	58.35	236.9	9	58	-1									
ALBERNI	58.54	310.3	10	1	1									
GLEN CANYON	59.20	292.1	10	3	-2									
BOGOTA	59.24	236.7	10	5	0	18	11	-1						
CHINCHINA	59.81	238.4	10	8A	-1	18	28	9						
EUREKA	60.15	296.9	10	10	-1									
ASHKABAD	60.18	65.4	10	13	1	18	29	5						
TUCSON TELE.	61.75	287.6	10	19	-3									
BOULDER CITY	61.81	293.2	10	12	-11									
RENO	62.32	299.2	10	24A	-2									
MINERAL	62.78	300.9	10	29	0									
SEMIPALATNSK	63.12	43.0	10	30	-1									
TASHKENT	64.11	56.2	10	38K	0	19	17	3						
CALISTOGA	64.50	300.1	10	39A	-1									
UKIAH	64.52	300.9	10	40	-1									
BERKELEY	64.86	299.3	10	44A	1							19	34	
LICK	64.87	298.5	10	38	-5									
PASADENA	65.05	293.8	10	42	-2									
PRIEST	65.14	297.0	10	44A	-1									
ANDIJAN	66.17	54.8	10	51A	0	19	43	4						
YAKUTSK	67.42	11.2	10	57	-2	19	53	-1						
KHOROG	68.05	57.8	11	3	0									
WARSAK DAM	70.59	60.3	11	17	-2									
QUETTA	70.69	66.1	11	19A	0	20	39	6	11	29	14	4	PP	
IRKUTSK	70.82	28.8	11	17	-3									
LWIRO	70.89	117.8	11	19	-1							35	46	
ESEN BULAK	72.93	36.8	11	32	-1	21	3	4						
LAHORE	73.97	60.2	11	37	-2									
NEW DELHI	77.84	60.3	12	1A	0									
BROKEN HILL	80.73	125.1	12	16	0									
ANTOFAGASTA	82.07	218.7	12	24	1									
PAOTOW	82.98	30.9	12	27A	-1									
CHANGCHUN	84.16	19.1	12	33	-1									
LANCHOW	84.72	37.3	12	38A	1									
PEKING	85.42	26.8	12	39A	-1									
BULAWAYO	85.53	128.1	12	41K	0									
SHILLONG	88.15	51.6	12	53	-1									
SIAN	88.26	34.5	12	55K	1									
CHITTAGONG	90.75	53.5	13	8	2	24	6	6				16	42	PP
MATUSIRO	93.47	11.1	13	16	-2									
SOUTH POLE	139.30	180.0	19	20	-9									
MUNDARING	148.09	70.2	19	47	3									
KOUMAC	149.52	336.9	19	51K	5									
CHARTERS TS.	150.30	11.0	19	52	5							20	39	
SCOTT BASE	150.99	186.4	19	49	0									

AUGUST 11 1.H 47.M 33.S EPICENTRE -20.08-178.50 DEPTH= 561.KM

A=-0.93966 B=-0.02464 C=-0.34123 D=-0.0262 E= 0.9997
G= 0.3411 H= 0.0089 K=-0.9400 HT= 4.7

DEPTH OF FOCUS= 0.083R

SE= 1.77

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
SUVA	3.48	302.9	1	17	-3	2	20	-3					
PORT VILA	12.69	278.4	2	49A	3	5	6	6					
NOUMEA	14.21	258.4	3	15A	14	5	45	18					
KOUMAC	16.16	265.3	3	22A	1	6	7	5					
KARAPIRO	18.52	195.0	3	44	1						10	21	SCP
TUAI	19.04	190.5	3	46	-2	6	42	-9			10	22	SCP
CHATEAU	19.74	193.8	3	53	-1	7	1	-2			10	23	SCP
TARATA	20.02	196.4	4	1	4								
WELLINGTON	21.90	193.7	4	14	0	7	31	-7			14	14	SCS
HONIARA	23.34	293.8	4	27A	0						7	9	
KAIMATA	23.94	198.6	4	33	0	8	9	-2					
GEBBIES PASS	24.69	195.5	4	40	1	8	16	-7			10	39	
BRISBANE	27.24	249.0	5	1K	-1	7	55	-68					
ROXBURGH	27.26	198.9	5	2	0	9	15	12			14	37	SCS
RIVERVIEW	30.20	236.8	5	29A	2	9	45	-4	7	3	14	57	SCS
CANBERRA	32.36	235.2	5	46K	0	10	17	-5			7	25	PP
RABAUL	32.64	295.0	5	47	-1						11	4	

CHARTERS TS.	33.06	263.8	5	51K	0	10	28	-4			
PORT MORESBY	34.80	282.7	6	6	0					10	54 SCP
MOORLANDS	36.47	224.6	6	21	1						
TARRALEAH	36.89	225.2	6	25	2						
MACQUARIE I.	38.42	201.1	6	37	1						
ADELAIDE	40.42	239.3	6	52K	0	12	16	-5		15	50 SS
HAWAII V.OB.	45.38	31.5	7	32	1					13	33
HONOLULU	45.70	27.0	7	35	2	13	37	1		10	32 *SP
DARWIN	49.10	270.8	8	2	3	14	20	-3			
GUAM	49.18	309.7	7	58	-1					12	8 SCP
CAPE HALLETT	52.65	184.3	8	24	-1						
DUMONT	53.60	199.1	8	29	-2					12	25 PP
SCOTT BASE	58.26	183.6	9	3	0					17	55
MUNDARING	59.09	244.2	9	9A	0						
WILKES	64.16	205.1	9	40	-2	17	30	-6	11 51		
BYRD STATION	65.13	170.5	9	48	0	17	50	3	10 57		
MANILA	68.70	295.4	10	10	0	18	26	-3			
MATUSIRO	69.59	323.9	10	13K	-2	18	38	-1			
ABUYAMA	69.92	321.0	10	16K	-1						
SOUTH POLE	70.05	180.0	10	16	-2	18	39	-5			
MIRNY	71.18	205.0	10	22	-2	18	51	-6	12 30	19	27 SCS
LEMBANG	72.58	269.0	10	31A	-1	19	19	7			
DJAKARTA	73.53	269.4								17	57
TANGERANG	73.72	269.3	10	38K	-1	19	19	-6			
Y.-SAKHLINSK	75.38	333.7	10	48K	0	19	42	-1			
PETROPAVLOVK	75.44	346.0	10	47A	-1	19	33	-10	12 57	23	25 *SS
ZO-SE	77.07	310.1	10	57K	0				13 1	13	48 *SP
VLADIVOSTOK	77.66	325.2	10	59K	-1	20	9	2	13 13	11	15 PCP
BERKELEY	78.18	42.2	11	5K	2	20	15	3	12 38	14	15 PP
PRIEST	78.19	44.4	11	6K	3						
LICK	78.26	43.0	11	5A	1						
CALISTOGA	78.44	41.5	11	6K	1						
PASADENA	78.74	47.3	11	7	1	20	21	3			
CANTON	79.11	299.5	11	9K	1	20	29	7		20	18 SKS
NANKING	79.31	309.8	11	10K	1	20	23	-1	13 19	14	20 *SP
MINERAL	80.08	40.5	11	9A	-4						
RENO	80.71	42.0	11	18K	2						
ARGENTINE I.	81.54	157.2	11	20	-1						
CHANGCHUN	81.78	322.6	11	22	0	20	49	0	13 36	20	40 SKS
MAWSON	81.80	199.9	11	21A	-1				13 32		
BOULDER CITY	82.03	47.2	11	15	-8				13 23		
TUCSON	83.02	52.2	11	28	0				13 41		
EUREKA	83.14	43.8	11	29	0				13 40		
TUCSON TELE.	83.15	52.1	11	29	0				13 41		
MAGADAN	83.22	344.8	11	28	-1	20	51	-12			
ALBERNI	83.87	32.1	11	34	2						
VICTORIA	84.09	33.2	11	34A	1						
SEATTLE	84.14	34.4	11	34	0						
GLEN CANYON	84.78	47.7	11	39	2						
PEKING	85.26	315.6	11	38K	-1	21	23	1	13 54	15	0 *SP
DUGWAY	85.58	44.4	11	41K	0						
SALT LAKE C.	86.50	44.3	11	46	1				14 0		
PENTICTON	86.57	34.1	11	46A	1						
ALBUQUERQUE	87.50	51.5	11	51	1				14 6		
SIAN	87.60	307.7	11	52K	2	21	48	4		21	19 SKS
COLLEGE	87.90	12.6	11	49	-3	21	42	-5	14 2	30	3 PKKP
FLAMING GRGE	88.21	45.1	11	53	0					13	36
KUNMING	88.74	297.2	11	57K	1	21	55	1		15	35 *SP
HUNGRY HORSE	89.08	37.0	11	57	0				14 13		
PAOTOW	89.63	313.8	11	59K	-1	22	5	3	14 15	15	39 *SP
BANFF	89.77	34.1	11	59	-1						
CHENGTU	89.87	302.7	12	1K	0	22	7	3		15	43 *SP
GOLDEN	90.38	47.6	12	4	1						
YAKUTSK	91.53	338.2	12	5K	-3	21	36	-43			
LANCHOW	92.14	307.6	12	13K	2	22	29	5	14 28	21	46 SKS
WICHITA MTS.	93.31	54.3	12	17	0	22	41	7	14 31	16	11 PP
TULSA	95.88	54.0				23	1	50	14 42	15	48 *SP
FAYETTEVILLE	97.16	54.3								14	49
SHILLONG	98.11	294.2	12	38	0						
IRKUTSK	98.11	322.8				22	15	-7		16	44 PP
CALCUTTA	100.22	290.3								22	24
NEW DELHI	111.51	293.6	17	31A	0						
ALERT	113.12	7.4								18	33 PP
PALISADES	113.72	53.1								25	33
WARSAK DAM	117.16	298.6	17	42	0						
TASHKENT	119.47	306.8	17	46	-1					18	41
QUETTA	120.59	293.8	17	49	0	23	56	1		20	31 PKS
SVERDLOVSK	123.38	325.6	17	51	-3	23	59	-4		19	42 PP

KIMBERLEY	126.51	205.6	18	0	0						
APATITY	128.42	345.0	18	2K	-2				20	26	
TROMSOE	129.32	352.2	18	4	-1						
SODANKYLA	130.09	347.6	18	3	-4				20	26	20 32 SKP
KIRUNA	130.78	350.6	17	55	-13						20 32 SKP
BULAWAYO	132.02	215.2	17	58	-13						20 42
KAJAANI	132.62	344.7				24	1	-27			21 39 PKS
TEHERAN	133.72	300.6	17	59	-15				20	46	
UMEA	134.48	348.5	18	7A	-8						20 40 SKP
MOSCOW	135.31	331.7	18	16	-1						20 51 PP
PULKOVO	135.32	339.7	18	16	-1						20 51 PP
SKALSTUGAN	135.91	353.1	18	5	-13						20 53 SKP
NURMIJARVI	136.40	343.6	18	7	-12	24	7	-28	20	43	21 51 PKS
HELSINKI	136.60	343.2	18	6	-13						20 54 SKP
BROKEN HILL	136.63	219.8	18	8	-11						20 55
GORIS	137.05	306.8									20 58 PP
TIFLIS	137.59	310.4	18	22	1						21 0 PP
UPPSALA	138.62	347.8	18	13	-10						20 59 SKP
GOTEBORG	141.64	350.9	18	23	-6						21 9 SKP
KARLSKRONA	142.46	347.1	18	24	-7						21 11 SKP
BANDEIRA	143.36	199.4	18	31K	-1						21 56 PP
SIMFEROPOL	143.37	320.1	18	30	-2				20	58	27 42 SKKS
COPENHAGEN	143.51	349.6	18	29	-3						25 3 PPP
WARSAW	144.49	339.3	18	34K	0						
LWIRO	145.22	233.5	18	37	2						19 15
DURHAM	145.28	3.1	18	35	0						22 3 PP
LWOW	145.32	334.1	18	35	0				20	56	22 1 PP
KSARA	146.61	301.3	18	37K	0				20	58	22 3 PP
KRAKOW	146.69	338.2	18	38	1						
WITTEVEEN	147.07	354.2	18	41	4						22 9 PP
RACIBORZ	147.25	340.0	18	41	3						
COLLMBERG	147.55	346.5	18	37	-1	24	47	-5			
JERUSALEM	147.64	298.0	18	39	1				21	4	
DE BILT	147.91	355.7	18	42	3						22 7 PP
JENA	148.20	347.9	18	38	-1				21	5	22 15 PP
PRAGUE	148.35	344.1	18	43	4						21 7 PP
PRUHONICE	148.40	343.8	18	39	0						21 6 PP
KEW	148.64	2.2	18	44	4				21	8	22 9 PP
CHEB	148.84	346.4	18	45	5						20 51
BUDAPEST	149.18	336.5	18	40	0						28 12
BRATISLAVA	149.27	339.4	18	39	-2						21 7 PP
FELDBERG	149.42	351.2	18	45	4						
VIENNA-H.	149.43	340.3	18	41A	0						18 56 PKP2
KASPERSKE H.	149.44	344.3	18	46	5				21	9	
DOURBES	149.94	356.0	18	48	6						22 17 PP
STUTTGART	150.70	349.5	18	42	-1				21	12	28 22 SKKS
BELGRADE	150.74	331.8	18	44	1						21 8
SOFIA	150.91	325.7	18	43	0				21	10	22 29 PP
TUBINGEN	150.96	349.6	18	50	7						
STRASBOURG	151.12	351.4	18	43	0				21	15	22 26 PP
EBINGEN	151.32	349.6	18	51	7						
PARIS	151.32	358.6	18	45A	1				21	20	
FOLIMIERE	151.33	2.7	18	54	10						
RAVENSBURG	151.59	348.5	18	44	0						19 3
ZAGREB	151.69	338.4	18	42	-2						
LJUBLJANA	151.97	340.5	18	45	0				21	15	22 27
BASLE	152.17	351.2	18	55	10						
CHUR	152.50	348.0	18	53	8						
TRIESTE	152.57	341.2	18	46	0				19	16	19 8 PKP2
BESANCON	152.65	353.4	18	53	7						19 26
GARCHY	152.83	357.7	18	54K	8				21	21	22 48 PP
ATHENS	153.74	317.5	18	55A	8						19 18
CLERMONT-FD.	154.34	357.4	18	49	1						21 28
FLORENCE X.	155.00	343.1	18	57	8						28 35 SKKS
ISOLA	155.52	350.3	18	50	0						19 20
AQUILA	155.62	338.3	19	19	29						22 57 PKS
MONACO	155.90	349.4									19 20
ROME	156.34	339.3	19	23A	32						23 3 PKS
BAGNERES	157.05	2.5	18	55	3						19 26
BANGUI	157.17	229.1	19	2	10						23 8 PP
TOLEDO	159.69	12.4	18	56	1				21	18	23 17 PP
MALAGA	162.63	16.1	19	52K	54						23 39 PKS

AUGUST 11 8.H 15.M 42.5 EPICENTRE 25.19 123.45 DEPTH= 126.KM

A=-0.49935 B= 0.75597 C= 0.42328 D= 0.8344 E= 0.5512
G=-0.2333 H= 0.3532 K=-0.9060 HT= 3.3

DEPTH OF FOCUS= 0.015R

SE= 2.75

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ISIGAKIZIMA	1.08	142.3	0 26K	2	0 43	1		
TAIPEI	1.75	265.2	0 34A	2	0 56	0		
HWALIEN	2.06	234.2	0 34A	-1	1 0	-2		
HSINCHU	2.28	260.7	0 40	2	1 8	1		
TAICHUNG	2.72	248.2	0 39A	-5	1 7	-10		
HSINKONG	2.82	222.8	0 45A	0	1 17	-2		
YUSHAN	2.84	233.7	0 48	2	1 34	14		
ALISHAN	2.93	236.0	0 44A	-3	1 18	-4		
TAITUNG	3.21	221.3	0 50A	0	1 24	-5		
TAWU	3.67	220.1	0 54A	-2	1 37	-3		
TAINAN	3.67	234.2	0 58A	1	1 40	0		
KAOHSIUNG	3.87	229.3	0 54	-5	1 15	-29		
PENGHU	3.92	245.9	0 55	-5	1 38	-8		
MAWASHI	3.97	74.0	1 2A	2	1 45	-2		
HENGCHUN	4.03	218.5	1 4A	3	1 51	3		
ZO-SE	6.22	341.7	1 34A	3	2 41	0		
NANKING	7.98	330.1	1 56A	1	3 29	5		
YAKUSIMA	8.15	48.4	1 56A	-1	3 46	18		
HUKUF	8.84	31.0	2 11A	5	4 21	36		
KAGOSIMA	8.92	42.9	2 10A	3	4 13	27		
BAGUIO CITY	9.13	197.6	2 8	-2	4 30	39		
NAGASAKI	9.39	35.4	2 18A	5	4 36	38		
CANTON	9.46	259.3	2 15K	1	3 57	-2		
MIYAZAKI	9.70	44.5	2 18	0	4 30	25		
KUMAMOTO	9.90	38.2	2 21A	1	4 51	41		
SAGA	10.01	35.1	2 26	4	3 56	-17		
ASOSAN	10.17	39.2	2 17	-7				
ITUHARA	10.31	28.1	2 31A	5	4 47	27		
HUKUOKA	10.31	34.3	2 30A	4	4 39	19		
MANILA	10.70	192.4	2 31	0	4 27	-2		
OOITA	10.73	39.8	2 34	3	4 55	26		
SIMONOSEKI	10.89	35.0	2 36	3				
ASHIZURI	11.23	45.9	2 37	-1	5 2	21		
UWAZIMA	11.28	42.7	2 46	7			3 47	
MATUYAMA	11.84	41.1	2 45	-1			8 22	
HIROSIMA	12.02	38.3	2 54	6				
KOTI	12.11	44.2	2 46	-3			5 8	
HAMADA	12.22	35.6	2 56K	5	5 26	21		
MUROTO	12.34	46.9	2 45	-7	4 47	-21		
TAKAMATU	12.94	42.9	2 57	-3	5 18	-4	15 22	SCS
TOKUSIMA	13.11	45.0	3 3	1			3 24	
MATSUE	13.17	36.8	3 7	4			6 24	
HIMEJI	13.27	43.1	3 16	11				
YONAGO	13.31	37.6	3 10	5				
SUMOTO	13.49	44.8	3 5	-2			6 41	
SIOMISAKI	13.53	49.7	3 4	-4	5 54	19		
WAKAYAMA	13.59	45.8	3 19	10				
TOTTORI	13.83	39.5	3 9	-3				
SAIGO	13.87	35.4	3 17	5				
KOBE	13.88	44.3	3 8	-4				
OSAKA	14.08	45.2	3 23	8	6 18	30		
OWASE	14.18	48.4	3 13	-3	6 6	16		
TOYOOKA	14.22	40.9	3 22	5			7 19	
ABUYAMA	14.25	44.6	3 13A	-4				
NARA	14.30	45.7	3 21	3				
KYOTO	14.44	44.4	3 16	-4			7 56	
TU	14.76	47.0	3 29	5				
KAMEYAMA	14.82	46.4	3 22	-2	6 14	9		
HIKONE	14.93	44.7	3 24	-2	6 42	34	15 27	SCS
TSURUGA	15.06	43.2	3 25	-2			3 50	
NAGOYA	15.34	46.4	3 28A	-3	6 36	19	15 29	
GIHU	15.35	45.3	3 29	-2				
HUKUI	15.42	42.4	3 30	-2				
SIAN	15.50	309.0	3 35K	2	6 38	17		
HAMAMATU	15.58	49.1	3 32	-2			6 28	
TORISIMA	15.81	66.7	3 37	0				
OMAESAKI	15.86	50.3	3 35	-2				
KANAZAWA	15.99	41.9	3 31	-8				
PEKING	16.01	339.3	3 44	5	6 44	12	15 29	SCS

IIDA	16.11	46.9	3	39	-1	7	1	26		
TAKAYAMA	16.12	44.1	3	40	-1					
SHIZUOKA	16.18	49.5	3	41	0	6	55	19		
HATIDYOZIMA	16.30	57.3	3	49	6					
MATUMOTO	16.64	45.1	3	51	4	7	14	27		
MISIMA	16.65	49.9	3	44	-3	6	46	-1	15	33 SCS
KOHU	16.68	47.7	3	47	0	7	2	14		
WAZIMA	16.71	40.1	3	46	-2	7	10	22		
AJIRO	16.71	50.3	3	46	-2					
HUNATU	16.73	48.5	3	47	-1	7	0	11	15	31 SCS
OSIMA	16.77	51.6	3	47A	-2	6	56	7	15	30 SCS
MATUSIRO	16.97	44.7	3	49A	-2	7	3	9		
NAGANO	17.04	44.3	3	51	-1	7	12	16	15	50
OIWAKE	17.06	45.8	3	52	0	7	10	14		
MERA	17.16	51.8	3	53A	0					
TITIBU	17.21	47.6	3	56	2				15	34
YOKOHAMA	17.30	50.0	3	56A	1	7	13	12		
TAKADA	17.34	43.3	3	49	-6				8	17
MAEBASI	17.44	46.5	3	57A	0	7	52	48		
TOKYO C.M.O.	17.50	49.5	3	58A	1					
KUMAGAYA	17.50	47.6	3	58	1					
HONGO	17.53	49.4	3	55	-3					
AIKAWA	17.93	41.0	4	1	-2					
CHENGTU	18.01	292.0	4	3K	-1	7	27	10		
TUKUBASAN	18.03	48.5	4	0A	-4	7	18	1	15	34 SCS
UTUNOMIYA	18.05	47.3	4	0	-4	7	24	6		
KAKIOKA	18.09	48.6	4	1	-3	7	26	7		
TYOSI	18.28	50.9	4	4	-2					
NIIGATA	18.35	42.5	4	9	2					
MITO	18.36	48.6	4	5K	-2	7	24	0		
SHIRAKAWA	18.61	46.3	4	6	-4	7	31	1		
CHANGCHUN	18.66	4.2	4	12	1	7	39	8		
KUNMING	18.75	274.2	4	13K	1	7	39	6	8	23 *SS
ONAHAMA	18.96	47.7	4	10A	+4	7	43	6	15	39 SCS
PAOTOW	19.00	327.1	4	16K	2	7	47	9		
HUKUSIMA	19.14	45.1	4	14	-2	7	56	15		
VLADIVOSTOK	19.18	19.1	4	17A	1	7	43	1	4	39 PP
YAMAGATA	19.36	43.7	4	18	0	7	52	7		
SAKATA	19.44	41.4							4	56
SENDAI	19.72	44.4	4	17	-5	7	58	6	15	39 SCS
LANCHOW	20.02	307.4	4	26K	1	8	4	6		
ISINOMAKI	20.08	44.6	4	22	-4				5	3
AKITA	20.13	40.0	4	27	1				8	35
MIZUSAWA	20.38	42.7	4	26	-3	8	4	-1		
MORIOKA	20.75	41.5	4	29	-3	8	14	2	5	8
MIYAKO	21.21	42.7	4	33	-4	8	21	1		
AOMORI	21.25	38.6	4	45	8				9	27
HATINOHE	21.49	40.2	4	35	-5	8	27	2		
HAKODATE	21.91	38.6	4	44	0				5	25
MORI	22.01	35.8	4	44	-1				5	26
SUTTSU	22.34	34.0	4	49	1				15	48 SCS
TOMAKOMAI	22.92	36.1							5	40
SAPPORO	23.10	35.0	4	53	-2	8	56	3	5	39 PP
GUAM	23.20	116.2	4	38	-18	9	6	11	5	23
URAKAWA	23.26	38.6	4	56	-1	8	59	3		
HIROO	23.65	39.0	5	1	0	9	3	0		
RUMOE	23.87	33.8	5	2	-1					
OBIHIRO	24.00	37.6	5	3	-1					
ASAHIGAWA	24.13	35.1	5	4A	-1				5	51
KUSIRO	24.71	38.9	5	9A	-2	9	26	5		
WAKKANAI	24.97	31.5	5	15K	2				16	3
ABASHIRI	25.31	36.9	5	16	0					
NEMURO	25.60	39.5	5	20K	1	9	45	10		
Y.-SAKHLINSK	26.64	30.2	5	28A	-1				6	39 PPP
UGLEGORSK	27.94	26.6	5	39A	-2				11	36
SHILLONG	28.50	277.6	5	45	-1	10	19	-3	12	19
CHITTAGONG	29.05	271.1	5	50K	0	10	30	-1	6 14	6 44 PP
LHASA	29.05	286.1	5	51	1					
ESEN BULAK	30.32	321.2	6	2K	0	10	51	0		
IRKUTSK	30.69	336.8	6	4	-1	10	55	-2		
PORT BLAIR	32.01	250.8	6	18	2	11	13	-5	6	58 PP
CALCUTTA	32.14	272.7	6	14K	-4	11	8	-12	7	7 PP
HOWRAH	32.18	272.7	6	19	1				9	43
CHATRA	32.58	280.9	6	21	0				9	5
BOKARO	34.21	275.8	6	36K	1	11	50	-2	7	49 PP
DJAKARTA	35.12	209.6	6	42K	-1	11	53	-13		
TANGERANG	35.20	209.9	6	44	0					
LEMBANG	35.36	207.9	6	46K	1	12	11	2		

YAKUTSK	37.06	4.9	6	58A	-1	12	25	-10			15	30 SSS
VISHAKHAPTNM	37.99	266.8	7	12A	5	12	53	4			8	40 PP
DARWIN	38.03	168.2	7	9	1	12	55	-5				
PETROPAVLOVK	38.32	34.2	7	9A	-1	12	50	-4			8	41 PP
MAGADAN	39.27	21.7	7	16	-2	13	0	-9			9	24 PPP
DEHRA DUN	40.30	287.8	7	23	-3	13	40	16			8	51 PP
RABAUL	40.39	132.3	7	29	2						13	4
NEW DELHI	41.19	285.3	7	33K	-1	13	35	-2			9	9 PP
PORT MORESBY	41.42	143.2	7	36K	0	13	41	0	8	4	14	29 *SS
SEMIPALATNSK	41.59	318.7	7	36K	-1	13	38	-5			9	17 PP
SEHORE	42.19	277.3	7	43	1							
MADRAS	42.47	261.7	7	45K	1	13	55	-1			9	20 PP
HYDERABAD	42.47	268.6	7	43	-1	14	16	20			9	33 PP
LAHORE	43.39	290.0	7	51K	-1							
FRUNSE	43.49	306.4	7	53K	1	14	12	1	8	20	9	41 PP
KHOROG	45.49	298.6	8	9	1						10	3 PP
WARSAK DAM	45.57	293.7	8	10K	1	14	41	0				
POONA	46.30	272.1	8	15K	0	14	52	1			10	8 PP
BOMBAY	47.12	272.9	8	22	1	15	8	5	8	56	10	17 PP
TASHKENT	47.32	303.8	8	23K	0	15	7	1			10	20 PP
HONIARA	49.48	129.5	8	39	0	15	38	2				
QUETTA	49.85	289.2	8	42K	0	15	42	1	9	12	10	40 PP
CHARTERS TS.	50.18	151.7	8	46K	1	15	48	3				
SVERDLOVSK	54.47	323.1	9	15	-2	16	41	-3			11	15 PP
MUNDARING	57.26	187.3	9	35	-2	17	18	-3				
PERTH	57.28	187.7	9	37	0	17	22	1			21	37 SS
KIZYL-ARVAT	57.35	301.7	9	38	1	17	25	3			12	6 PP
BRISBANE	59.43	149.6	9	52	0	17	51	2				
KOUMAC	60.36	135.2	9	58	0							
ADELAIDE	61.56	165.8	10	7	1	18	17	1			10	45 PCP
TEHERAN	61.76	298.5	10	7	0	18	21	2				
SHIRAZ	62.22	291.6	10	10K	-1	18	18	-6			19	33 *SS
NOUMEA	63.00	134.9	10	16K	0							
RIVERVIEW	64.33	154.6	10	25A	1	18	57	6	10	58	20	6 SCS
CANBERRA	64.86	157.1	10	28K	0	18	59	2			11	0 PCP
GORIS	64.88	303.6	10	28K	0	18	58	1			11	7 PCP
TIFLIS	65.53	306.3	10	32K	0	19	6	1			13	0 PP
TOOLANGI	65.78	160.9	10	34	0	19	10	2			20	5 *SS
COLLEGE	66.96	27.6	10	41	0	19	16	-7			23	27 SS
APATITY	67.00	335.3	10	40K	-1	19	22	-1	11	15	13	10 PP
MOSCOW	67.27	322.3	10	42K	-1	19	23	-3			13	3 PP
SUVA	68.70	123.3				19	30	-13				
KEVO	68.81	338.2	10	51	-2							
SODANKYLA	69.59	335.8	10	56K	-1	19	54	0			20	43 SCS
KAJAANI	70.10	332.3	10	59	-1	19	57	-3			20	45 SCS
PULKOVO	70.12	327.5	11	0K	-1	19	58	-2	11	36	20	44 PS
TARRALEAH	70.44	162.1	11	3	0							
MOORLANDS	70.77	161.6	11	5	0							
HONOLULU	71.22	74.8	11	10	3	20	18	5	11	43	24	29
TROMSOE	71.52	339.1	11	7	-2							
NORD	71.55	354.3	11	6	-3	20	13	-3				
KIRUNA	71.69	337.1	11	9K	-1	20	16	-2	11	39	21	16 *SS
MOULD BAY	71.84	13.0	11	10K	-1							
SIMFEROPOL	72.21	311.8	11	11K	-2	20	21	-3	11	47	21	5 SCS
ALERT	72.49	0.8	11	14A	-1	20	26	-1				
HELSINKI	72.55	328.8	11	15	0							
NURMIJARVI	72.58	329.2	11	14K	-1	20	26	-2	11	54	14	0 PP
UMEA	73.29	333.2	11	18K	-1				11	52		
APIA	74.05	113.9	11	26	2							
HAWAII V.OB.	74.36	75.6	11	28	2	20	56	8				
KSARA	74.54	300.3	11	25K	-2	21	2	12	12	8	14	16 PP
SITKA	75.05	33.7	11	31	1	20	58	2				
IASI	75.74	315.6	11	23	-10	20	58	-5				
JERUSALEM	75.78	298.6	11	34	0							
UPPSALA	76.07	330.0	11	34K	-1	21	4	-3			14	28 PP
SKALSTUGAN	76.57	334.6	11	37K	-1				12	10		
LWOW	76.91	319.0	11	39K	-1	21	13	-3	12	12	14	36 PP
RESOLUTE	77.34	9.7	11	42K	0							
WARSAW	77.65	322.1	11	45K	1	21	23	-1	12	17	12	0 PCP
BUCHAREST	77.75	313.3	11	45	0	21	24	-1	12	15	14	25 PP
THULE	78.36	2.8	11	48	0				12	27		
KARLSKRONA	78.73	327.1	11	48	-2							
KRAKOW	79.22	320.4	11	53	0	21	37	-4			12	9 PCP
SKALNATE PL.	79.42	319.5	11	55	1							
KARAPIRO	79.57	140.6	11	55K	0				12	31	19	53
GOTEBORG	79.68	329.5	11	54K	-1				12	4		
TARATA	79.78	142.2	11	58A	2				12	37		
RACIBORZ	80.20	320.9	11	58	0	21	48	-3	12	34	13	5 PP

SOFIA	80.29	312.6	11	58	0	21	52	0			14	52	PP
TIMISOARA	80.34	316.0	12	0	1	21	51	-1					
CHATEAU	80.44	141.6	12	0	1				12	54			
COPENHAGEN	80.51	327.6	12	0	0	21	54	0					
BUDAPEST	80.92	318.3	12	1	-1	21	37	-21			15	5	PP
TUAI	81.09	140.4	12	3A	0								
HURBANOVO	81.23	318.9	11	46	-17	21	39	-22			14	40	PP
BELGRADE	81.24	315.4	12	2K	-1	22	1	-1			14	59	PP
WELLINGTON	81.46	143.5				21	48	-16					
SCORESBY SD.	81.49	348.9	12	5	0	22	5	1					
BRATISLAVA	81.74	319.5	12	9	3	21	50	-17			12	20	PCP
ROXBURGH	81.78	149.3	12	7	1	22	10	3			27	26	SS
SKOPJE	81.87	312.5	12	9	2	22	9	1					
ATHENS	82.05	308.1	12	6K	-2						22	5	
GEBBIES PASS	82.07	146.3	12	11	3								
VIENNA-H.	82.12	319.8	12	9K	1	22	10	-1			15	25	PP
PRUHONICE	82.31	322.0	12	8	-1	22	12	0					
PRAGUE	82.33	322.1	12	10	1	22	13	0			15	20	PP
COLLMBERG	82.49	323.6	12	9	-1	22	13	-1					
SARAJEVO	82.96	315.3	12	12	0								
KASPERSKF H.	83.29	321.5	12	14	0	22	10	-12			12	52	
JENA	83.44	323.8	12	15	0	22	21	-3	12	51	15	22	PP
ZAGREB	83.55	317.8	12	16	1	22	25	0					
ALBERNI	84.26	37.7	12	22A	3								
LJUBLJANA	84.31	318.5	12	18	-1				12	57	15	35	PP
WITTEVEEN	84.91	327.0	12	23	1								
TRIESTE	84.98	318.5	12	23K	1	22	41	2	12	58	15	42	PP
MACQUARIE I.	85.04	160.1	12	24A	1								
VICTORIA	85.44	37.8	12	27A	2								
FELDBERG	85.50	324.3	12	33	8								
HEIDELBERG	85.82	323.5	12	26	0								
TANANARIVE	85.84	247.0	12	29K	2				13	16	15	57	PP
STUTTGART	85.87	322.8	12	27K	0	22	49	1			15	45	PP
DE BILT	86.07	327.0									15	53	PP
TUBINGEN	86.12	322.6	12	28	0								
PADOVA	86.23	319.0	12	30	2	22	40	-11			15	50	PP
RAVENSBURG	86.24	321.8	12	29	0								
EBINGEN	86.37	322.4	12	30	1								
SEATTLE	86.55	38.1	12	34	4	22	49	-5					
STRASBOURG	86.80	323.2	12	32	1	22	46	-10	13	3	15	56	PP
CHUR	86.81	321.1	12	31	0	22	42	-14					
AQUILA	86.91	315.8	12	32	0	22	40	-17			15	54	PP
PENTICTON	87.05	35.7	12	33A	1								
FLORENCE X.	87.48	317.8	12	31	-4	22	57	-6	13	6			
DURHAM	87.50	331.6	12	35A	0	23	4	1	13	14	16	0	PP
BASLE	87.51	322.4	12	34K	-1	23	4	1					
PRATO	87.52	318.0	12	36	1	23	5	2					
DOURBES	87.57	325.6				23	2	-2					
REGGIO CALA.	87.61	311.2	12	36	1	23	4	0					
MESSINA	87.63	311.4				22	36	-28			16	0	PP
ROME	87.73	315.8	12	36K	0	23	6	1			15	54	PP
PAVIA	87.95	319.8	12	37K	0	23	5	-2			16	1	PP
BANFF	88.00	32.7	12	38A	1								
NEUCHATEL	88.17	322.2	12	38	0	23	10	1					
CHIAVARI	88.35	319.1	12	50	11	22	50	-21			16	16	PP
BESANCON	88.56	322.8	12	39	-1						14	20	
KEW	89.12	328.7	12	42K	0	23	16	-2	13	16	16	9	PP
PARIS	89.46	325.5	12	45	1	23	19	-2			16	16	PP
ISOLA	89.76	319.9	12	46	1								
MONACO	89.80	319.3	12	43	-2								
GARCHY	90.11	324.0	11	46	-61						12	26	
UKIAH	90.75	45.6	13	3	13								
FOLINIERE	90.98	326.7	12	49	-2								
CLERMONT-FD.	91.03	322.8	12	52	1								
MINERAL	91.10	43.9	12	53K	1								
CALISTOGA	91.44	45.7	12	55K	2								
WILKES	91.77	185.2	12	54K	-1	23	38	-4			17	9	PP
BERKELEY	92.08	46.2	12	58K	2	23	18	-26	13	26	24	51	PS
DUMONT	92.43	173.5	12	56	-2	23	44	-3	13	35			
RENO	92.69	43.7	13	1K	2								
LICK	92.78	46.4	13	1A	2								
BUTTE	92.83	35.3	13	1	1	23	18	-33			23	52	
BOZEMAN	93.85	34.9	13	6	2				13	44	16	49	PP
PRIEST	94.11	46.9	13	8A	3								
MIRNY	94.32	191.7	13	5	-1	23	57	-7	13	39	16	58	PP
BAGNERES	94.39	322.1	13	7	0						16	56	
EUREKA	95.09	42.0	13	12	2	23	0	-32	13	46	16	49	PP
LWIRO	95.15	269.9	13	10K	0								
DUGWAY	96.51	39.9	13	18K	2	23	44	4					

SALT LAKE C.	96.69	39.0	13	19	2	23	45	4	17	20
PASADENA	96.93	47.3	13	20	2	23	39	-3	13 55	24 29 *SS
FLAMING GRGE	97.96	37.6	13	25	2					
BOULDER CITY	97.98	44.2	12	24	-59					
PRICE	98.05	39.3	13	25	2					
TOLEDO	98.86	321.8	13	28A	1	23	48	-4		17 27 PP
RAPID CITY	98.91	32.0	13	28	1	23	54	2		
GLEN CANYON	99.34	41.7	13	31	2					
SCHEFFERVLLE	99.84	6.0	13	31	0					
ALMERIA	100.00	318.7	13	28K	-4	23	53	-4		17 36 PP
BROKEN HILL	100.43	258.9	13	33K	-1					17 38 PP
GRANADA	100.44	319.6				24	3	3		17 38 PP
GOLDEN	101.01	36.3	13	38	1	25	5	63		
BANGUI	101.48	280.4	13	37	-2					31 48
CAPE HALLETT	102.32	166.8	13	43	1					
BULAWAYO	102.51	253.5	13	42K	-1					17 57 PP
TUCSON	102.91	44.9	13	45	0	24	18	7		17 48 PP
TUCSON TELE.	102.92	44.8	13	45	0					17 55 PP
ALBUQUERQUE	103.76	40.3	13	53	4	24	21	6		18 0 PP
BENI ABBES	104.24	313.4	18	8	257					24 18
DUBUQUE	105.64	25.5	18	13	777					
SCOTT BASE	105.90	171.3	18	10	777					
LAWRENCE	106.62	30.6	17	11	777					
BREBEUF	107.95	12.5	18	22K	777	24	36	2		25 58 S
WICHITA MTS.	108.32	35.5	18	15	777	24	39	4	19 18	18 41 PP
KIMBERLEY	108.81	246.5								29 38
TULSA	108.82	32.9	18	16	777	24	40	2		18 41 PP
FAYETTEVILLE	109.44	31.6	14	23	777					
PONTA DELGDA	111.02	334.2								19 0 PP
PALISADES	112.19	14.1				24	52	1		17 38
FORDHAM	112.35	14.1				24	51	-1		19 9
BANDEIRA	114.19	264.3	18	28A	4					19 22 PP
HERMANUS	114.97	242.1								29 5 PKKP
SOUTH POLE	115.04	180.0	18	27	1					
CHAPEL HILL	115.61	20.1								19 32
COLUMBIA	116.71	22.7	18	31	2					
BYRD STATION	119.25	169.7	18	35	1	26	44	87	19 40	29 29
BERMUDA	122.23	8.1								20 46
HOPE	132.78	26.6								22 16
SAN JUAN	135.70	13.1	19	6	0				19 35	28 24 SKKS
ARGENTINE I.	139.63	175.0	19	3	-10					
GALERAZAMBA	139.86	29.3								22 46 PKS
CARACAS	143.11	17.2	19	18K	-1					22 46 PP
TRINIDAD	144.07	8.1	19	20	-1					41 38
CHINCHINA	144.76	34.3	19	25K	3					29 20 SKKS
BOGOTA	145.83	32.3	19	28K	4					29 27 SKKS
HUANCAYO	157.96	57.0	19	47	6					
AREQUIPA	163.57	61.0	19	53	6					
SANTA LUCIA	165.23	127.0	19	51	2					29 58

AUGUST 13 6.H 35.M 52.S EPICENTRE 2.15 -83.56 DEPTH= 0.KM

A= 0.11207 B=-0.99300 C= 0.03729 D=-0.9937 E=-0.1122
G= 0.0042 H=-0.0371 K=-0.9993 HT= 7.2

SE= 2.66

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
BALBOA HTS.	7.85	30.3	1	57	-1	3	47	18					
CHINCHINA	8.40	70.3	2	1A	-5	3	41	-2					
BOGOTA	9.79	75.2	2	23A	-2	4	14	-3			2	27	PP
FUQUENE	10.35	71.1	2	31	-2								
GALERAZAMBA	11.88	43.5	2	59	5	4	33	-35					
SANTIAGO MA.	12.27	336.9	3	1	2								
SAN SALVADOR	12.74	334.3	3	8	3								
HUANCAYO	16.31	150.1	3	39	-13	6	30	-24					
HOPE	17.11	22.6	4	6	4								
CARACAS	18.48	62.6	4	15A	-4	7	42	-1					
MERIDA	19.60	342.9	4	38	6						9	48	
AREQUIPA	22.00	147.6	4	56	-2	9	4	8					
TACUBAYA	22.98	319.3	5	10	3	9	28	14			5	49	
SAN JUAN	23.51	45.5	5	12	0	9	27	4			5	41	PP
TRINIDAD	23.57	68.0	5	12	-1	9	29	5					
FORT FRANCE	25.41	59.3	5	30	-1	10	1	5					
ST. KITTS	25.43	52.3	5	31	0								

GUADALAJARA	26.66	315.1									13	20
ANTOFAGASTA	28.70	154.3	6	3	2							
COLUMBIA	31.77	4.0	6	27	-1	11	25	-13				
DALLAS	32.96	339.3	6	38	-1							
CHAPEL HILL	33.86	6.6	6	46	0							
CHIHUAHUA	33.98	323.0									12	38
FAYETTEVILLE	35.17	345.0	6	55	-3	12	29	-2			8	18
WICHITA MTS.	35.30	338.3	6	57	-2	12	41	8			8	16 PP
C. GIRARDEAU	35.43	351.8	6	57	-3	12	33	-2				
TULSA	35.45	342.8	6	58	-2	12	25	-10			8	16 PP
ROLLA	36.39	348.8	7	6K	-2	12	49	-1				
ST. LOUIS 1	36.82	351.3	7	10	-2	12	55	-1				
BLOOMINGTON	36.96	356.2	7	12	-1	12	55	-3				
FLORISSANT	37.00	351.1	7	11	-2	12	56	-3				
SANTA LUCIA	37.44	162.1	7	15	-2	13	6	0	7	41	8	40 PP
MORGANTOWN	37.45	4.6	7	16	-1							
MANHATTEN	38.74	343.8	7	26	-2	13	33	7				
PENNSYLVANIA	38.81	6.9	7	28	0							
ALBUQUERQUE	38.97	329.5	7	29	-1						9	25 PCP
CLEVELAND	39.19	2.4	7	29A	-2	13	27	-5				
TUCSON	39.43	322.3	7	31	-2	13	30	-6				
FORDHAM	39.50	11.6	7	34	0	13	35	-2				
PALISADES	39.65	11.5	7	36	1	13	40	1			17	58 SCS
LONDON ONT.	40.77	2.7	7	44A	0							
WESTON	41.53	13.7	7	50	-1	13	38	-29				
GOLDEN	42.31	334.8	7	58	1	14	24	5				
GLEN CANYON	43.21	326.7	8	5	0							
BREBEUF	44.05	10.1	8	11K	0	14	42	-2			10	0 PP
BOULDER CITY	44.39	323.0	8	14	0							
PRICE	44.77	329.9	8	16	-1							
FLAMING GRGE	45.10	332.2	8	18	-2							
SHAWINIGAN	45.21	10.5	8	19	-2							
RAPID CITY	45.24	340.1	8	21	0							
PASADENA	45.34	318.5	8	23	1	15	18	15				
HALIFAX	45.82	19.9	8	23K	-2							
SALT LAKE C.	46.16	330.1	8	28	0						10	27 PP
DUGWAY	46.23	328.8	8	29K	0	15	15	-1			22	44
EUREKA	47.42	325.7	8	38	0							
PRIEST	48.16	319.0	8	42A	-2							
LICK	49.50	319.7	8	55A	1							
BOZEMAN	49.59	334.8	8	54	-1	16	14	11				
RENO	49.70	323.2	8	56K	0							
BERKELEY	50.21	319.9	9	0K	0	16	8	-4			11	0 PP
BUTTE	50.53	334.0	9	2	0							
CALISTOGA	50.86	320.5	9	4K	-1							
MINERAL	51.28	322.9	9	6K	-2							
HUNGRY HORSE	52.96	334.9	9	20	0	16	53	4				
SCHEFFERVLLE	54.26	11.9	9	28	-2							
PENTICTON	56.16	332.4	9	42K	-2							
VICTORIA	57.46	329.6	9	50	-3							
PONTA DELGDA	63.64	48.5	10	37	2	19	12	3			19	33 PS
RESOLUTE	72.76	356.9	11	31	-1							
HONOLULU	74.82	291.4	11	20	-24						29	40 PKKP
LISBON	76.51	50.8	11	54K	0	21	34	-5			14	48 PP
MOULD BAY	76.68	351.7	11	52	-3							
COIMBRA	77.27	49.4	11	57K	-1	21	48	1	12	12		
SERRA PILAR	77.27	48.4	11	58A	0						14	52 PP
COLLEGE	77.35	336.8	11	56	-2	21	46	-2			14	54 PP
SCORESBY SD.	78.76	17.5	12	5	-1	22	6	2				
MALAGA	80.03	53.3	12	17A	4	22	17	0				
TOLEDO	80.57	50.1	12	21	5	22	22	-1			15	20 PP
GRANADA	80.70	52.8									14	10
ALERT	80.81	2.8	12	16	-1	22	22	-3				
BENI ABBES	81.47	60.0	12	24	4	22	35	3			15	30 PP
ALMERIA	81.58	53.2	12	18	-3	22	36	3			23	36 PS
JERSEY	82.79	40.9	12	16	-11	22	15	-30				
ALICANTE	83.24	51.8	12	28	-2	22	51	1			15	39 PP
ABERDEEN	83.56	32.8				22	58	5			28	18 SS
DURHAM	83.62	35.3	12	35A	3	22	57	3			28	30 SS
FOLINIERE	83.82	41.3	12	31	-2							
BAGNERES	83.94	47.1	12	32	-1							
BYRD STATION	84.01	185.9	12	33	-1							
TORTOSA	84.10	49.4	12	39	5							
KEW	84.11	38.6	12	34	0	22	56	-3			15	46 PP
PARIS	85.79	41.4	12	44	2	23	15	0			16	3
GARCHY	86.14	42.9	12	45	1							
CLERMONT-FD.	86.15	44.5	12	45	1	23	17	-2				
DOURBES	87.18	40.1	12	50	1	23	23	-5				

DE BILT	87.54	38.1	12	57	6	23	36	4	24	38	PS
BESANCON	88.12	43.0	12	54	0						
WITTEVEEN	88.44	37.4	12	58	3						
STRASBOURG	89.29	41.6	13	2	3	23	32	-16	16	34	PP
FELDBERG	89.65	39.9	13	0	-1						
STUTTGART	90.27	41.4	13	6	2	23	41	-16	25	5	PS
PAVIA	90.42	44.9	13	7	2				30	30	SS
JENA	91.59	39.1	13	12	2	23	48	-21	16	49	PP
FLORENCE X.	92.01	46.2	13	22	10	23	59	-13	17	16	PP
SOUTH POLE	92.14	180.0	13	13	0						
PADOVA	92.30	44.6				23	38	-37	17	8	PP
KASPERSKE H.	93.07	40.7	13	17	0				17	0	PP
ROME	93.08	48.0	13	21	4	23	59	-23	25	28	PS
KIRUNA	93.28	21.6	13	18K	0	23	53	-30			
PRUHONICE	93.59	39.8							16	57	
TRIESTE	93.59	44.2	13	23A	4	23	59	-27	17	13	PP
AQUILA	93.71	47.5	13	21	1	24	30	3	34	14	SSS
LJUBLJANA	94.08	43.7	13	22	0				17	12	PP
BRATISLAVA	95.51	41.4	13	29	1				17	26	
SODANKYLA	95.69	21.4	13	22	-7						
MESSINA	95.84	51.4	14	30	60	24	6	0	17	23	PP
BUDAPEST	96.91	41.8				24	15	4	25	41	PS
NURMIJARVI	97.02	28.3				24	12	0			
BELGRADE	98.39	44.3	13	45K	4				24	25	SCS
WELLINGTON	100.19	228.6							27	0	PS
HERMANUS	101.76	124.6				24	43	7	27	13	PS
ROXBURGH	103.50	223.7							27	30	
KSARA	112.85	51.9	18	24	-15						
RIVERVIEW	120.08	231.7	18	44	-9				26	32	
CANBERRA	121.22	229.4							37	2	SS
TEHERAN	123.55	43.7							20	45	
TUKUBASAN	124.24	317.5							21	1	PP
MATUSIRO	125.32	318.9	19	6	3				20	53	PP
SHIRAZ	127.46	49.5	19	4	-3				21	6	
CHARTERS TS.	128.22	246.1	19	19	10						
ADELAIDE	128.94	225.3							38	59	
PORT MORESBY	129.08	259.7							38	48	SS
WARSAK DAM	137.08	30.9	19	30	5						
QUETTA	137.27	38.9	19	30	4	26	18	-17	22	11	PP
NANKING	139.92	329.9							20	40	
LANCHOW	141.37	350.4							22	34	PP
DEHRA DUN	143.25	27.1	19	32	-4						
NEW DELHI	144.30	29.8	19	38A	0						
MUNDARING	144.98	210.1	19	38	-1				19	46	
CHENGTU	146.58	348.1	19	45	3						
POONA	149.73	46.3	19	56A	9						
CHATRA	149.83	16.6	19	55K	8						
CANTON	149.99	327.6	19	54	7						
SHILLONG	152.09	8.8	19	57	6						

AUGUST 13 20.H 11.M 41.S EPICENTRE 53.48 108.97 DEPTH= 31.KM

A=-0.19427 B= 0.56525 C= 0.80172 D= 0.9457 E= 0.3250
G=-0.2606 H= 0.7582 K=-0.5977 HT= -6.7

SE= 3.01

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KABANSK	2.01	225.4	0	31	-1							
IRKUTSK	3.07	248.6	0	46	-1						1	30
ESEN BULAK	10.82	234.2	2	38	2							
PAOTOW	12.93	176.4	3	4	0							
YAKUTSK	13.94	43.9	3	13	-4						7	14
PEKING	14.32	157.1	3	22	0							
CHANGCHUN	14.45	125.3				6	22	18				
LANCHOW	17.80	193.7	4	9	2	7	29	8				
SEMIPALATNSK	17.92	271.7	4	2	-6	7	16	-8				
VLADIVOSTOK	18.36	115.1	4	19	5	7	45	11				
SIAN	19.22	180.1	4	26	2	8	5	11				
UGLEGORSK	21.05	88.6	4	58	15						8	31
Y.-SAKHLINSK	22.38	93.0	5	1	4						11	58
NANKING	22.54	157.8				9	9	10				
CHENGTU	23.09	190.9	5	5	1	9	17	9				
ALMATA	23.40	257.2	5	7	0						9	24
MAGADAN	23.54	58.3	5	11	3							
ZO-SE	24.05	153.6	5	15	2	9	35	10				

MATUSIRO	26.46	118.0	5 35	-1	10	9	4			
LHASA	27.18	215.9	5 44	2						
KUNMING	28.71	191.8	5 54	-2	10	46	4			
TASHKENT	29.10	261.5	5 57	-3				11	16	
PETROPAVLOVK	29.25	70.5	6 1	0				12	45	SCP
CANTON	30.52	172.1	6 13	1						
CHATRA	31.15	219.9	6 16A	-2						
DEHRA DUN	32.21	236.5	6 26	-1						
WARSAK DAM	32.79	248.7	6 31	-1						
LAHORE	33.15	242.6	6 34	-1						
NEW DELHI	34.06	235.8	6 40	-3						
APATITY	37.10	321.9						8	34	
ASHKABAD	37.74	266.6	7 15	1						
QUETTA	38.23	249.5	7 16	-2						
SODANKYLA	39.64	323.0	7 40	10						
MOSCOW	39.71	303.0						9	9	PP
PULKOVO	41.32	311.3						17	13	SSS
KIRUNA	41.62	325.2	7 45	-2						
TEHERAN	43.37	269.8	7 37	-24						
NURMIJARVI	43.44	314.3			14	25	-2			
GORIS	43.91	277.8			14	28	-6			
SHIRAZ	46.99	262.8	8 29K	-1				10	54	PP
COLLEGE	48.19	33.9	8 39	0						
KRAKOW	51.73	304.8						26	33	
BUDAPEST	53.88	302.9						21	16	
COLLMBERG	54.20	309.7	9 22	-3				12	47	
PRUHONICE	54.37	307.6	9 33	7	17	1	1	20	56	SS
JENA	55.10	310.1	9 28	-3				12	40	PPP
KASPERSKE H.	55.41	307.4	9 31	-2				10	31	
DURHAM	57.87	320.2			17	57	10			
STRASBOURG	58.51	310.2						30	31	
PENTICTON	69.66	31.6	11 7	-1						
TOLEDO	70.60	311.3	11 13	-1						
SCHEFFERVLLE	72.01	357.4	11 21	-1						
EUREKA	79.62	33.8	12 7	1						
DUGWAY	79.98	31.2	12 7K	0						
CHARTERS TS.	80.03	144.7	12 9	1						
CHINA LAKE	82.35	36.5	12 20	0						
BOULDER CITY	83.17	34.4	12 16	-8						
LWIRO	85.94	260.8	12 38A	0						
ALBUQUERQUE	86.73	28.5	12 43	1						
WICHITA MTS.	88.97	22.4	12 53	0				16	33	PP
SOUTH POLE	143.29	180.0	19 28	-3						
BYRD STATION	149.15	165.2	19 45	4						

AUGUST 14 1.H 10.M 44.S EPICENTRE -49.88 163.49 DEPTH= 0.KM

A=-0.62028 B= 0.18386 C=-0.76253 D= 0.2842 E= 0.9588
G= 0.7311 H=-0.2167 K=-0.6470 HT= -5.4

SE= 2.67

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
MACQUARIE I.	5.40	209.3	1	20	-3	2	18	-9					
ROXBURGH	5.90	44.0	1	26	-4	2	26	-14					
GEBBIES PASS	8.81	48.9	2	8	-3	4	16	24			5	18	
KAIMATA	9.18	39.7	2	16	0						4	48	
COBB RIVER	10.92	39.8	2	41	1						4	39	
WELLINGTON	11.67	46.8	2	53	3						4	24	
TARATA	13.19	40.0	3	16	5								
MOORLANDS	13.51	297.2	3	13	-2	5	36	-11					
CHATEAU	13.69	43.3	3	11	-6						8	49	PCP
TARRALEAH	14.02	296.2	3	20	-2	5	49	-10					
KARAPIRO	14.74	40.4	3	23	-8								
TUAI	14.74	46.5	3	36	5								
ONERAHI	16.18	33.4	4	9	19								
CANBERRA	17.99	318.5	4	14	1	7	37	5	4	22	8	1	SS
RIVERVIEW	18.44	325.8	4	20A	2	7	43	1			4	40	PP
DUMONT	20.64	206.7	4	43	0						5	26	
CAPE HALLETT	22.71	174.7	5	5	1								
ADELAIDE	23.44	300.1	5	13K	2	9	28	6					
BRISBANE	23.91	335.9	5	16	0	9	34	4					
NOUMEA	27.62	5.9	5	52	1								
SCOTT BASE	28.11	178.5	5	56	1								
KOUMAC	29.26	1.5	6	5	0								

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WILKES	31.25	218.4	6	23	0	11	28	-1			7	47
CHARTERS TS.	32.74	329.0	6	36	0							
MIRNY	38.25	217.5	7	24	1	13	19	1			9	1 PP
MUNDARING	39.21	279.0	7	31	0	13	21	-11				
PERTH	39.47	278.7				13	48	12			16	45 SS
SOUTH POLE	40.31	180.0	7	41	1							
PORT MORESBY	42.58	335.8				14	20	-2			17	44
DARWIN	46.00	312.9	8	25	-1							
RABAUL	46.52	344.3	8	31	1						15	10
MAWSON	48.80	210.0	8	48K	0	15	54	3	8	58	9	4 *SP
LEMBANG	63.22	293.0	10	34	2							
TANGERANG	64.34	292.5	10	36	-3							
MANILA	74.31	317.3	11	39	-2	21	17	3				
HONOLULU	78.62	36.2				21	58	-3				
CANTON	85.16	314.8	12	55	16	23	5	-3				
MATUSIRO	88.91	339.9	12	57A	0	23	25	-19				
ZO-SE	88.94	324.7	12	58	1							
NANKING	90.71	323.3	13	7	1							
TANANARIVE	91.27	238.4	13	11	3							
KUNMING	92.03	307.7				24	21	9				
PEKING	98.73	325.2				24	17	-3				
BERKELEY	109.10	53.7									28	38 PS
EUREKA	113.61	56.4	18	40	0							
BOGOTA	114.01	112.9									19	48 PP
QUETTA	116.44	286.1	18	46	1						22	27 PKS
PENTICTON	118.72	46.6	18	54	4							
WICHITA MTS.	120.38	71.0	18	54	1	25	57	6			20	28 PP
COLLEGE	120.47	21.8	19	3	10							
TULSA	122.88	71.8									20	41 PP
CARACAS	122.92	115.4									20	46
MANHATTEN	124.52	68.3	19	6	5							
SHIRAZ	125.23	275.7	19	8	6						21	38 PP
FLORISSANT	128.05	72.4	19	10	2							
TEHERAN	129.90	280.7	19	15	4							
KSARA	138.69	267.5	19	28	0							
PALISADES	139.66	80.0									22	2 PP
ALERT	144.61	9.4	19	36	-2							
HALIFAX	148.03	81.1	19	54	10							
ATHENS	149.04	262.9	19	54	9							
SCHEFFERVLLE	149.45	61.1	19	51	5							
APATITY	149.76	324.3	19	53	6							
KEVO	151.42	329.9	20	0	11							
SOFIA	151.82	270.7	19	57	7	27	16	20			23	55 PP
SODANKYLA	152.35	325.2	19	58	8							
TROMSOE	154.00	332.4	20	7	14							
MESSINA	154.37	255.2	19	55	2				20	8	24	0 PP
KIRUNA	154.39	328.2	20	6	13							
HELSINKI	154.52	309.7	20	21	28							
NURMIJARVI	154.64	310.5	20	23	29						30	52 SKKS
BUDAPEST	156.55	277.9	20	45	49						37	15
BRATISLAVA	158.00	278.5	20	35	37						21	49
AQUILA	158.05	261.4	20	19	21						24	20 PP
ROME	158.40	259.4	20	18A	19						24	20 PP
LJUBLJANA	158.95	271.5	19	57	-2						20	38
PRUHONICE	160.07	282.3	20	45	45						44	34 SS
PRAGUE	160.16	282.5	21	0	59							
KASPERSKE H.	160.50	279.4	20	17	16						24	25 PP
COLLMBERG	161.26	285.7	20	52	50						25	36
PAVIA	162.07	264.7									30	40 SKKS
JENA	162.10	284.2	20	54	52						24	50 PP
STUTTGART	163.17	276.1	20	57	53						45	5 SS
STRASBOURG	164.10	274.6									35	40
MALAGA	164.20	218.2	20	36	31						24	44 PP
DOURBES	166.42	279.0	20	59	52						25	3 PP
TOLEDO	166.68	226.1	21	14	67						24	53 PP
GARCHY	166.78	266.2	21	14	67						24	57

AUGUST 15 8.H 29.M 47.S EPICENTRE 4.74 122.62 DEPTH= 620.KM

A=-0.53721 B= 0.83945 C= 0.08204 D= 0.8423 E= 0.5390
G=-0.0442 H= 0.0691 K=-0.9966 HT= 7.0

DEPTH OF FOCUS= 0.093R

SE= 1.14

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
MANILA	9.98	351.4	2	19	0	4	36	25					
DARWIN	18.86	154.4	3	44	0	6	41	-3					
LEMBANG	18.87	232.6	3	44K	0	6	43	-1					
ZO-SE	26.26	357.2				8	44	2					
NANKING	27.42	352.9	5	2	2	9	2	2					
KUNMING	27.84	318.7				9	11	4					
PORT MORESBY	28.20	119.9	5	5A	-2								
RABAUL	30.83	106.3									13	1	
CHENGTU	31.18	327.9				9	56	-2					
SIAN	32.00	338.3				10	12	2					
CHARTERS TS.	33.89	137.5	5	56	1	10	38	-1					
MATUSIRO	34.74	22.3	6	1A	-1	10	47	-5					
LANCHOW	35.64	333.4				11	7	2					
SHILLONG	36.02	308.3	6	14K	2								
MUNDARING	37.01	189.1	6	19	-2								
ADELAIDE	42.31	160.2	7	2K	-1								
BRISBANE	43.23	139.3	7	12	2								
CANBERRA	46.93	150.2	7	38A	-1						8	57	PCP
NEW DELHI	49.13	304.1	7	53K	-2								
WARSAK DAM	55.53	308.4	8	41	1								
QUETTA	58.15	302.7	8	58K	0								
KARAPIRO	64.85	135.8	9	42	0								
CHATEAU	65.47	137.0	9	46	1								
TUAI	66.38	136.0	9	51	0								
SHIRAZ	70.38	299.7	10	14K	-1	18	38	-2			12	34	PP
MIRNY	74.24	191.9	10	35	-2								
COLLEGE	85.56	25.4	11	35	0								
BULAWAYO	95.37	250.3	12	18	-3								
WICHITA MTS.	124.83	41.4	17	52	1				20	9	19	49	PP
MORGANTOWN	131.20	23.2									20	34	

AUGUST 17 5.H 4.M 31.S EPICENTRE 10.47 121.56 DEPTH= 21.KM

A=-0.51473 B= 0.83813 C= 0.18055 D= 0.8521 E= 0.5233
G=-0.0945 H= 0.1538 K=-0.9836 HT= 6.5

SE= 2.72

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
MANILA	4.20	353.7	1	0	-5	1	57	3					
BAGUIO CITY	5.99	351.0	1	26	-4	2	39	0					
HENGCHUN	11.49	356.2	2	48	2								
TAWU	11.83	357.0	2	49	-2	5	57	54					
KAOHSIUNG	12.14	354.3	3	19	24								
TAITUNG	12.22	358.2	2	57	1	6	18	65					
NHATRANG	12.23	279.4	2	55	-1								
TAINAN	12.53	354.3	3	2	2								
HWALIEN	13.43	0.3	3	11	-1								
TAICHUNG	13.63	356.6	3	20	5								
HONG KONG	13.73	329.9	3	13	-3	5	47	-2					
TAIPEI	14.48	359.9	3	27	1	6	26	19					
CANTON	14.80	329.0	3	27	-3	6	23	8					
MAWASHI	16.71	19.5	3	55	0								
ZO-SE	20.53	359.1	4	39K	-1	8	27	3					
YAKUSIMA	21.55	21.4	4	49K	-1	8	48	5					
NANKING	21.64	353.6	4	51K	0	8	50	5			5	17	PP
LEMBANG	22.09	219.5	4	54K	-2	9	7	14					
TANGERANG	22.23	222.6	4	58K	1	9	12	16					
KAGOSIMA	22.59	20.3	5	0K	-1	9	12	10					
GUAM	22.87	80.2	5	3	0						6	43	
HUKUE	23.12	15.8	5	5	-1	9	20	8					
MIYAZAKI	23.21	21.7	5	9	2	9	14	1					
NAGASAKI	23.44	17.9	5	9K	0	9	15	-2					
UNZENDAKE	23.56	18.6	5	25	15								
MEDAN	23.70	254.9	5	10A	-1	9	25	3					
KUMAMOTO	23.79	19.4	5	12	0	9	32	9					
ASOSAN	23.98	20.0	5	21	7								
SAGA	24.06	18.2	5	16	1						6	10	
HUKUOKA	24.39	18.1	5	20	2	9	42	8					
OOITA	24.47	20.7	5	19	0	8	56	-39					
DARWIN	24.50	157.7	5	19	0						5	53	
ASHIZURI	24.53	23.8	5	20	1								
SIMONOSEKI	24.90	18.8	5	19	-4								
MATUYAMA	25.44	22.2	5	30	2	10	1	10					

KOTI	25.47	23.8	5	27	-1	9	53	1		
HIROSIMA	25.79	21.0	5	29	-2	10	7	10		
CHENGTU	25.88	323.5	5	31	-1	10	0	1	6	13 PP
HAMADA	26.14	19.9	5	34	-1	10	3	0		
SIOMISAKI	26.34	27.6	5	36	0	9	58	-8		
SIAN	26.34	335.9	5	36K	-1	10	10	4	6	27 PP
TOKUSIMA	26.35	24.9	5	39	2					
TAKAMATU	26.35	23.8	5	36	-1	10	5	-1		
SUMOTO	26.72	25.2	5	41	1	10	18	5		
MATSUE	26.98	21.0	5	41	-1					
OWASE	27.05	27.5	5	42	-1					
KOBE	27.12	25.2	5	44	0					
OSAKA	27.24	25.8	5	46	1	11	4	43		
ABUYAMA	27.45	25.6	5	45K	-2					
KYOTO	27.64	25.7	5	46	-2	10	24	-4		
TOYOOKA	27.71	23.7	5	48	-1	10	25	-4		
KAMEYAMA	27.82	27.0	5	54	4	10	32	2		
HIKONE	28.08	26.2	5	51	-1	11	39	64		
HAMAMATU	28.29	28.9	5	52	-2					
NAGOYA	28.32	27.3	5	45	-10					
PORT BLAIR	28.32	275.2	6	11K	16	10	59	21	6	59 PP
GIHU	28.42	26.8	5	54	-1					
OMAESAKI	28.44	29.8	5	56	0					
SHIZUOKA	28.82	29.6	6	3	4				12	18
IIDA	29.00	28.1	6	1	0					
OSIMA	29.15	31.2	6	9	7					
MISIMA	29.21	30.1	6	4	1					
AJIRO	29.23	30.4	5	59	-4					
HUNATU	29.43	29.4	6	13	9					
KOHU	29.46	29.0	6	20	15					
YOKOHAMA	29.81	30.7							6	48
PEKING	29.82	351.7	6	6K	-2	11	4	2	7	6 PP
OIWAKE	30.00	28.2	6	8	-2				12	49
MATUSIRO	30.01	27.5	6	6K	-4	11	16	11		
TOKYO C.M.O.	30.05	30.5							7	8
HONGO	30.09	30.5	7	19	69				13	10
NAGANO	30.11	27.3	6	35	24					
LANCHOW	30.12	330.5	6	10K	-1	11	11	4		
KUMAGAYA	30.24	29.5	6	8	-4				14	3
MAEBASI	30.30	28.8	6	7	-5					
TUKUBASAN	30.65	30.3	6	8A	-7	11	14	-1	7	12 PP
KAKIOKA	30.70	30.4	6	10	-6				7	16
CHITTAGONG	30.81	296.3	6	19	2				6	30
MITO	30.96	30.6							7	13
SHIRAKAWA	31.42	29.4							7	21
NIIGATA	31.53	27.0							6	51
ONAHAMA	31.62	30.4							7	24
PAOTOW	31.68	343.2	6	22	-2	11	33	1		
SHILLONG	31.87	302.1	6	23A	-3	11	32	-3		
HUKUSIMA	32.05	29.0	6	26	-2					
PORT MORESBY	32.22	126.9	6	25	-4	11	29	-11	16	25 SCS
YAMAGATA	32.39	28.3	6	29	-2					
SENDAI	32.66	28.9	6	31	-2					
ISINOMAKI	32.99	29.2	6	33	-3					
CHANGCHUN	33.39	4.9	6	38K	-1	12	1	3	7	55 PP
MIZUSAWA	33.46	28.2	6	37	-3	12	11	12		
AKITA	33.47	26.4	6	45	5					
VLADIVOSTOK	33.75	13.7	6	43K	1	12	8	4	8	1 PP
CALCUTTA	33.92	294.9	6	51	7	12	7	1		
HOWRAH	33.97	294.9	6	54	10					
LHASA	34.26	308.3	6	48	1					
AOMORI	34.67	26.1							8	15
MORI	35.64	24.6	6	58	-1					
SUTTSU	36.10	23.6	7	3	1					
CHATRA	36.26	301.4	7	5	1					
BOKARO	36.54	296.0	7	6A	0	12	49	2	8	30 PP
URAKAWA	36.63	26.8	7	6	-1					
SAPPORO	36.77	24.5	7	5	-3	12	52	2		
OBIHIRO	37.43	26.5	7	14	0					
VISHAKHAPTNM	37.74	285.4	7	18K	2	13	18	13	8	51 PP
ASAHIGAWA	37.78	24.8	7	17A	0					
KUSIRO	38.02	27.6	7	17	-2					
NEMURO	38.83	28.3	7	25K	0	13	24	2		
WAKKANAI	38.87	22.7	7	27K	1	13	24	2		
CHARTERS TS.	38.90	141.3	7	25	-1	13	21	-2		
MADRAS	40.56	277.8	7	40K	0	13	48	0	9	22 PP
Y.-SAKHLINSK	40.60	22.3	7	39K	-1	13	47	-1		
ESEN BULAK	41.78	333.6	7	49K	-1	14	5	-1		
HYDERABAD	42.33	284.4	7	56	2				9	28 PP

MUNDARING	42.51	186.7	7	56	0							
PERTH	42.53	187.2				14	27	10			10	39
HONIARA	43.01	116.1	7	57	-3	14	23	-1				
KODAIKANAL	43.34	273.8	8	5	2	14	38	9			21	59
IRKUTSK	43.97	344.8	8	6K	-2						9	48 PP
DEHRA DUN	44.96	302.6	8	15	-1	14	50	-2			10	38 PPP
NEW DELHI	45.22	300.0	8	15A	-3	14	51	-5			10	2 PP
POONA	46.76	285.6	8	29K	-1	15	21	3			15	29 PS
BOMBAY	47.76	286.0	8	44	6	15	31	-1			16	54
ADELAIDE	48.03	161.0	8	38A	-2	15	39	3	8	48	8	53 *SP
BRISBANE	48.30	141.9	8	41	-1	15	42	2				
LAHORE	48.37	303.0	8	41	-1							
WARSAK DAM	51.27	305.3	9	22	17	15	51	-30				
YAKUTSK	51.80	4.9	9	7K	-2	16	22	-6				
PETROPAVLOVK	51.84	27.6	9	7K	-2	16	31	2				
FRUNSE	51.95	317.0	9	9	-1	16	34	4			20	17 SS
KOUMAC	52.12	126.3	9	10K	-1							
RIVERVIEW	52.27	148.7	9	12A	0	16	40	5	9	34	11	17 PP
SEMIPALATNSK	52.30	327.7	9	10	-2	16	37	2				
CANBERRA	52.42	151.6	9	12A	-1	16	39	2	9	17	11	11 PP
TOOLANGI	52.79	156.1	9	15	-1	16	45	3				
MAGADAN	53.67	18.0	9	21K	-2	16	55	1				
PORT VILA	54.02	120.9	9	23	-2							
QUETTA	54.30	299.6	9	26	-1	17	6	4	9	38	39	38 PKPPKP
NOUMEA	54.75	126.8	9	29K	-1							
TASHKENT	55.11	313.4	9	31A	-2	17	17	4			13	3 PPP
TARRALEAH	57.26	158.2	9	53	4							
MOORLANDS	57.65	157.7	9	59	8							
ASHKABAD	62.54	307.3	10	24	-1						18	57
SUVA	62.92	116.6				19	17	29				
SVERDLOVSK	65.57	328.2	10	43A	-2	19	28	1				
TEHERAN	67.88	304.3	10	59	0							
TARATA	69.62	138.7	11	10	0							
KARAPIRO	69.71	137.0	11	10	0						11	36
ROXBURGH	70.32	146.4	11	15	1						20	27
WELLINGTON	71.02	140.3	11	16	-2	20	29	-3			13	59 PP
GEBBIES PASS	71.11	143.4	11	21	2							
TUAI	71.24	137.1	11	18	-2							
MACQUARIE I.	71.99	158.1	11	28	4							
GORIS	72.03	308.1	11	25	1	20	49	5			14	8 PP
WILKES	77.03	184.5				21	39	0	12	1	26	8 SS
HONOLULU	77.35	70.4	11	59	4	21	53	10			14	59 PP
KIPAPA	77.41	70.3	11	57	2							
MOSCOW	78.01	324.9	11	57K	-2	21	48	-2			14	58 PP
DUMONT	78.11	172.6	11	56	-3	21	59	8			14	52 PP
TANANARIVE	78.56	248.2	12	4	2							
MIRNY	79.61	191.2	12	5	-2						12	45
APATITY	79.69	337.0	12	6	-2	22	6	-2			22	47 PS
HAWAII V.OB.	80.21	72.0	12	12	1							
KSARA	80.69	302.7	12	18	5	22	18	0			15	19 PP
COLLEGE	80.87	25.6	12	13	-1	22	17	-3			15	22 PP
SIMFEROPOL	80.89	314.1	12	13K	-1	22	20	0				
JERUSALEM	81.48	300.8	12	19K	2							
PULKOVO	81.66	329.2	12	17	-1	22	25	-3			12	21 PCP
KEVO	81.83	339.5	12	17	-2							
SODANKYLA	82.31	337.1	12	19K	-3						15	29 PP
KAJAANI	82.35	333.7	12	20	-2	22	42	7				
HELSINKI	84.26	330.1	12	31K	-1							
NURMIJARVI	84.35	330.4	12	31K	-1	22	54	-1				
KIRUNA	84.55	338.0	12	32K	-1	22	57	0			22	44 SKS
TROMSOE	84.62	339.9	12	31	-2							
UMEA	85.63	334.1	12	36	-2	23	6	-2				
NORD	85.94	354.4	12	37	-3	23	6	-5				
MOULD BAY	86.52	12.1	12	41	-2							
BUCHAREST	86.62	314.4	12	45	2	23	11	-6				
LWOW	86.90	320.0	12	44	-1	23	19	-1				
ALERT	87.15	0.5	12	45	-1							
UPPSALA	87.92	330.6	12	47K	-3	23	27	-3				
WARSAW	88.18	322.8	12	51	0	23	33	1			23	27 SKS
SITKA	88.33	32.2	12	50	-2							
CAPE HALLETT	88.47	166.7	12	52	0							
SOFIA	88.95	313.1	12	55	0	23	41	2			16	20 PP
SKALSTUGAN	89.07	335.0	12	53	-2							
KRAKOW	89.41	320.8	12	51	-6	23	39	-5				
ATHENS	89.73	308.5	12	55	-3						23	34
KARLSKRONA	90.10	327.5	13	1	1							
BELGRADE	90.46	315.7	13	4K	2						16	45 PP
RACIBORZ	90.48	321.2	13	9	7	23	59	6			16	40 PP

BUDAPEST	90.70	318.5	13	2	-1	23	34	-21		16	6 PP
GOTEBORG	91.41	329.6	13	7	1					16	22
SCOTT BASE	91.70	171.4	13	5	-2						
VIENNA-H.	92.17	319.8	13	9	0						
PRUHONICE	92.74	321.8	13	12	0	24	12	-1			
ZAGREB	93.19	317.6	12	57	-17						
COLLMBERG	93.21	323.4	13	13	-1					17	4 PP
KASPERSKE H.	93.63	321.2	13	15	-1					16	9
HALLE	93.75	323.8	13	17	0	24	23	1			
CHEB	94.02	322.4	13	22	4					25	44
JENA	94.18	323.4	13	18	-1	24	11	-15		17	3 PP
TRIESTE	94.72	317.9	13	21	0	24	1	-29		17	4 PP
SCORESBY SD.	95.49	348.4	13	25	0						
BROKEN HILL	95.51	256.4	13	30	5						
MESSINA	95.88	310.4	13	29	3	24	5	5	13 37	17	27 PP
PADOVA	96.04	318.2	13	34	7	24	16	15		26	16 PS
AQUILA	96.09	314.9	13	27	0	24	39	38		17	27 PP
BULAWAYO	96.27	250.7	13	30	2						
FELDBERG	96.29	323.5	13	33	5						
STUTTGART	96.39	322.0	13	27	-2	24	46	43			
HEIDELBERG	96.47	322.7	13	29	0						
ROME	96.88	314.7	13	35K	4	24	49	44		17	33 PP
FLORENCE X.	97.05	316.8	13	29	-3	24	29	23		17	29 PP
DE BILT	97.32	326.1	13	51	18					17	41 PP
STRASBOURG	97.38	322.2	13	29	-4	24	42	34		31	5 SS
PAVIA	97.89	318.7								16	48
CHIAVARI	98.13	317.8	14	5	28	24	59	47		17	27 PP
ABERDEEN	98.37	332.7								22	34
DOURBES	98.57	324.5	13	35	-4	24	26	12			
DURHAM	99.46	330.5				25	5	46			
PENTICTON	100.01	35.6	13	45K	0						
PARIS	100.39	324.0	14	52	65						
GARCHY	100.79	322.5	14	50	61					17	51
CLERMONT-FD.	101.47	321.1								17	56 PP
FOLINIERE	102.11	325.0								18	5 PP
BERKELEY	103.48	46.9								17	35 PP
HUNGRY HORSE	103.67	34.5								16	55
RENO	104.48	44.5	18	9A	244						
BYRD STATION	105.12	170.9	14	11	777						
TORTOSA	105.52	317.6								19	30
BUTTE	105.79	35.9	14	10	777					17	26
WOODY	106.88	47.7	14	20	777						
EUREKA	107.12	43.1	14	17	777					18	45 PP
PASADENA	108.08	48.9	18	42	777	25	10	12		19	12 PP
DUGWAY	108.83	41.1	14	31A	777						
TOLEDO	108.99	318.6								18	46 PP
ALMERIA	109.49	315.2	18	35A	777					19	8 PP
GRANADA	110.10	315.9				25	45	38		19	13 PP
FLAMING GRGE	110.59	38.9	14	29	-242						
MALAGA	110.89	315.9	18	35	3					19	39 PP
RAPID CITY	112.22	33.2	19	20	46						
LARAMIE	112.66	36.8	19	2	27						
LISBON	112.91	319.9	19	29	53						
GOLDEN	113.79	38.0	18	39	2						
TUCSON	114.38	47.5	19	32	54						
ALBUQUERQUE	115.94	42.8	18	44	2					19	45 PP
MANHATTEN	119.17	33.3	18	45	-3						
WICHITA MTS.	121.13	38.3	18	52	0	25	48	0		20	20 PP
TULSA	121.96	35.5	18	54	1					20	25 PP
ROLLA	122.60	31.2	18	55	1						
BREBEUF	122.63	12.6	18	55A	1				19 9	20	35 PP
FLORISSANT	122.66	29.4	18	55	0						
BLOOMINGTON	124.12	26.2	19	5	8						
C. GIRARDEAU	124.23	29.9	18	58	0						
PENNSYLVANIA	125.92	18.2								20	54
MORGANTOWN	126.30	20.6	19	3	1						
PALISADES	126.83	14.6								21	6 PP
HOPE	146.43	32.7	19	42	4						
SAN JUAN	150.35	14.9	19	51	6						
BALBOA HTS.	151.47	48.2	19	54	8					21	42
ST. KITTS	152.05	8.8	19	55	8						
SANTA LUCIA	154.54	155.7	20	0	9						
CHINCHINA	157.03	48.9	19	56	2					20	31 PKP2
CARACAS	157.52	22.3	19	57A	2	26	44	-12			
FUQUENE	158.03	44.6	19	58	3						
BOGOTA	158.39	46.8	19	59	3					44	15 SS
TRINIDAD	158.81	8.1	19	56	0						
ANTOFAGASTA	162.58	140.6								22	1

AUGUST 18 4.H 1.M 33.S EPICENTRE -21.64-179.39 DEPTH= 516.KM

A=-0.93033 B=-0.00990 C=-0.36659 D=-0.0106 E= 0.9999
G= 0.3666 H= 0.0039 K=-0.9304 HT= 4.3

SE= 1.58

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SUVA	4.03	329.0	1	18	-2							
NOUMEA	13.16	264.5				5	23	14				
KOUMAC	15.28	271.1				6	1	13				
KARAPIRO	16.82	194.0	3	31	3							
TUAI	17.36	189.1				6	22	-3				
CHATEAU	18.04	192.8	3	41	1	6	37	0				
TARATA	18.29	195.6	3	45	3							
WELLINGTON	20.20	192.8	4	0	0	7	2	-12				
KAIMATA	22.20	198.2				7	39	-8				
GEBBIES PASS	22.98	194.9				8	5	6			4	45
BRISBANE	25.93	251.7	4	52	0						10	47
RIVERVIEW	28.66	238.0	5	17	1							
CANBERRA	30.80	236.8	5	35K	1						7	11 PP
CHARTERS TS.	32.10	266.4	5	48	3	10	18	-4				
PORT MORESBY	34.37	285.5	6	6K	1							
ADELAIDE	38.92	240.8	6	42K	0							
DARWIN	48.31	272.5	7	56	0	14	11	-6				
SCOTT BASE	56.66	183.5	8	55	-1							
MUNDARING	57.67	245.1	9	1	-1							
BYRD STATION	63.74	170.3	9	41	-1							
SOUTH POLE	68.49	180.0	10	10	-2							
MATUSIRO	70.37	324.8	10	24A	1							
HONG KONG	78.11	299.8	11	8	2	19	46	-32			22	40 *SS
CHINA LAKE	81.73	46.4	11	26	1							
TUCSON	84.64	52.4	11	40	0							
EUREKA	84.83	44.0	11	42	1							
GLEN CANYON	86.44	48.0	11	51	3							
PENTICTON	88.32	34.4	11	59	2							
ALBUQUERQUE	89.12	51.8	12	3	2							
COLLEGE	89.60	12.9	12	4	1							
FLAMING GRGE	89.89	45.4	12	5	1							
WICHITA MTS.	94.89	54.7	12	28	1	22	9	-45				
QUETTA	120.44	293.1	17	53	1							
BULAWAYO	130.27	215.3									20	39
SODANKYLA	131.42	346.9									20	44 SKP
KIRUNA	132.17	350.0									20	47 SKP
KAJAANI	133.89	343.9									20	53 SKP
BROKEN HILL	134.91	219.7									20	55
UMEA	135.83	347.7									20	58 SKP
NURMIJARVI	137.64	342.6									21	3 SKP
GOTEBORG	143.04	349.9	18	33A	-2							
LWIRO	143.62	232.7	18	36K	0							
KARLSKRONA	143.77	345.8	18	34	-2							
COLLMBERG	148.85	344.9	18	50	6							
JENA	149.53	346.3	18	51	6							
PRUHONICE	149.65	342.1	18	51K	6							
KASPERSKE H.	150.69	342.5	18	53	6						21	16
STUTTGART	152.05	347.7	18	57	8							
GARCHY	154.34	356.1	19	19	27							
BANGUI	155.51	228.1	19	13	20							

AUGUST 18 16.H 43.M 55.S EPICENTRE 62.29-152.47 DEPTH= 36.KM

A=-0.41460 B=-0.21606 C= 0.88399 D=-0.4621 E= 0.8868
G=-0.7839 H=-0.4085 K=-0.4675 HT= -9.6

DEPTH OF FOCUS= 0.001R

SE= 1.82

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
COLLEGE	3.32	36.7	0	51	1							
SITKA	10.12	113.5	2	23	-2							
MOULD BAY	17.82	25.3	4	9	3							
VICTORIA	21.25	117.0	4	45	0							
PENTICTON	22.26	110.5	4	56A	1							
SEATTLE	22.40	116.9	5	0	4	9	14	19				
BANFF	22.77	102.2	4	59	-1							

RESOLUTE	23.25	34.7	5	8	4					
HUNGRY HORSE	25.47	105.3	5	26	0				8	56 PCP
PETROPAVLOVK	27.10	272.7	5	41A	0					
BUTTE	27.88	107.1	5	46	-2	10	56	29	6	40
MINERAL	28.75	125.4	5	56K	0					
ALERT	28.81	15.9	5	56	0	11	17	35		
BOZEMAN	28.83	105.8	5	58	2					
CALISTOGA	29.87	128.4	6	1A	-5					
RENO	30.14	123.8	6	10A	2					
BERKELEY	30.67	128.7	6	13K	0	11	15	3		
LICK	31.37	128.3	6	19A	0					
EUREKA	31.72	118.9	6	22	0				9	13 PCP
SALT LAKE C.	32.38	112.6	6	29	1					
DUGWAY	32.44	114.3	6	28A	0	11	40	1		
PRIEST	32.79	128.0	6	32A	1					
FLAMING GRGE	33.32	109.6	6	36	0					
RAPID CITY	33.63	99.5	6	38	-1					
PRICE	33.78	112.6	6	41K	1					
YAKUTSK	34.30	305.1	6	44A	0	12	14	6		
NORD	34.40	10.5							11	28
LARAMIE	34.71	105.0	6	49	1					
BOULDER CITY	35.18	120.7	6	53	1				9	14 PCP
PASADENA	35.49	126.4	6	56	1	12	32	5		
GLEN CANYON	35.67	116.0	6	56	0					
GOLDEN	36.11	106.4	7	1	1	13	5	29		
Y.-SAKHLINSK	38.66	277.7	7	21A	0	13	23	8		
ALBUQUERQUE	39.57	111.9	7	30	1	13	25	-4	9	37 PCP
TUCSON	40.05	119.0	7	32	-1	13	25	-11		
MANHATTEN	40.52	98.0	7	38	1	13	45	2		
DUBUQUE	40.67	89.5	7	36	-2	13	48	3		
KIPAPA	41.02	187.9	7	41	0					
HONOLULU	41.14	188.0	7	40	-2	13	59	7		
LAWRENCE	41.33	97.0	7	43	0					
SCHEFFERVLLE	42.17	59.3	7	50	0					
HAWAII V.OB.	42.86	183.9	7	56	0					
SCORESBY SD.	43.08	22.0	7	58	0					
WICHITA MTS.	43.27	103.9	7	59	0	14	29	6	9	42 PP
TULSA	43.56	100.1	8	1	-1	14	31	3		
FLORISSANT	43.73	92.6	8	2	-1					
ROLLA	43.74	94.8	7	57A	-6					
ST. LOUIS 1	43.93	92.6	8	4	-1					
LONDON ONT.	44.68	81.0	8	11A	0					
BLOOMINGTON	45.23	88.8	8	5	-10	14	52	0		
DALLAS	45.65	103.5	8	19	1					
BREBEUF	46.21	72.9	8	22K	-1	15	7	1	8 32	10 14 PP
VLADIVOSTOK	46.60	282.5	8	27A	1					
MORGANTOWN	47.93	82.9	8	37	1					
PENNSYLVANIA	47.96	80.2	8	36	-1					
TROMSOE	48.23	4.0	8	39	0					
KEVO	48.24	0.2	8	37	-2					
HOUSTON	48.92	104.4	8	46	2					
MATUSIRO	48.93	272.0	8	44	0	16	5	21		
CHANGCHUN	49.02	288.2	8	45A	0				10	41 PP
PALISADES	49.61	76.9	8	49	0	15	54	0		
WESTON	49.69	73.8	8	48	-2					
FORDHAM	49.75	77.0	8	52	2	15	56	0		
WASHINGTON	49.85	81.1	8	45	-6	15	41	-16		
KIRUNA	50.08	3.5	8	52A	-1					
APATITY	50.39	357.1	8	54A	-1	16	5	0		
SODANKYLA	50.64	0.4	8	56	-1				11	5
IRKUTSK	50.82	309.5	8	58A	-1	16	18	7		
HALIFAX	51.29	66.2	9	0K	-2					
CHAPEL HILL	51.35	85.0	9	3	1					
ABUYAMA	51.53	273.0	9	4A	0					
COLUMBIA	52.00	88.1	9	8	1	16	31	4		
SKALSTUGAN	53.93	8.4	9	20	-2					
KAJAANI	53.95	359.9	9	21	-1					
UMEA	54.09	4.0	9	21A	-2					
PEKING	56.09	292.3	9	37A	0	17	31	9	11	42 PP
NURMIJARVI	57.51	1.7	9	46	-2					
HELSINKI	57.85	1.5	9	49	-1					
UPPSALA	57.95	5.9	9	48A	-3					
PAOTOW	58.24	297.4	9	53	0	18	1	11		
SVERDLOVSK	58.46	339.4	9	53	-1					
ESEN BULAK	58.62	310.9	9	56A	1	17	59	4		
GOTEBORG	59.74	9.6	10	1	-2					
SEMIPALATNSK	60.13	324.0	10	4	-2					
DURHAM	61.07	18.8				18	31	4		

ZO-SE	61.32	282.6	10	13A	-1	18	37	7			12	29 PP
KARLSKRONA	61.52	7.6	10	13	-2							
NANKING	61.60	285.2	10	16A	0	18	41	7			10	33 PP
MOSCOW	62.06	353.5	10	19	0							
SIAN	64.07	294.4	10	31A	-1							
KEW	64.46	18.9	10	35	0							
DE BILT	64.59	15.0	10	35	0							
LANCHOW	64.65	299.4	10	35A	-1	19	16	4			13	2 PP
WARSAW	65.71	4.4	10	40	-3				10	46		
HALLE	65.89	10.6	10	44	0				10	55		
COLLMBERG	66.18	9.9	10	44K	-2						13	37 PP
JENA	66.42	10.9	10	47	0	19	29	-4			13	14 PP
DOURBES	66.49	15.9	10	48	0	19	29	-5				
FOLINIERE	67.06	19.7	10	49	-2							
ALMATA-2	67.45	322.8	10	53	-1							
PARIS	67.46	17.6	10	54	0						11	51
PRAGUE	67.51	9.1	10	56	2							
PRUHONICE	67.61	9.0	10	55	0	19	49	2				
RACIBORZ	67.74	6.5	10	52	-3						11	17 PCP
KRAKOW	67.85	5.3	10	55	-1						11	25 PCP
LWOW	68.21	2.4	11	0	2							
STUTTGART	68.34	12.9	10	59	0						11	26
STRASBOURG	68.36	14.0	11	0	1						11	38
KASPERSKE H.	68.38	9.8	10	59	0						12	44
FRUNSE	68.62	324.6	11	1A	0	20	0	1				
EBINGEN	68.89	13.2	11	3	0							
GARCHY	69.04	17.6	11	3	-1						11	48
CHENGTU	69.24	296.4	11	4	-1	20	12	5				
RAVENSBURG	69.35	12.8	11	5	0							
UZHGOROD	69.36	3.7	11	0	-5							
VIENNA-H.	69.45	7.9	11	5	-1							
BESANCON	69.46	15.5	11	7	1							
BRATISLAVA	69.58	7.4	11	7	0							
BUDAPEST	70.37	6.1	11	12	0	20	22	2				
CLERMONT-FD.	70.53	17.9	11	13	0							
TASHKENT	71.41	328.0	11	19A	1	20	42	10				
LJUBLJANA	71.51	9.5	11	19	1							
CANTON	71.74	284.7	11	20A	0	20	44	8			15	46 PPP
TRIESTE	71.85	10.1	11	20	0							
HONG KONG	72.05	283.6	11	23	1	20	47	7				
SAN JUAN	72.23	84.4	11	22	-1							
BAGNERES	72.71	20.7	11	25	-1							
SIMFEROPOL	72.98	355.1	11	25A	-2	20	51	1				
COIMBRA	73.83	27.9	11	33K	1							
DUZHANBE	74.14	327.5	11	36	2							
BAGUIO CITY	74.20	275.1	11	33	-1							
GALERAZAMBA	74.57	96.3				21	19	11				
KUNMING	74.63	294.6	11	36A	-1	21	13	4				
TOLEDO	75.05	24.6	11	39	0						31	45
AQUILA	75.10	10.8									21	18
SOFIA	75.31	3.2	11	42	1						14	41 PP
MANILA	75.49	273.8	11	45	3							
ASHKABAD	77.06	335.4	11	53	2							
GORIS	77.43	345.2	11	55K	2	21	44	5				
WARSAK DAM	77.72	323.8	11	53	-1							
GRANADA	77.74	25.0	11	59A	5							
MALAGA	78.03	25.7	11	56A	0	21	49	3				
CARACAS	78.71	89.0	12	0	0	21	55	2				
DEHRA DUN	79.22	317.2	12	5	2							
CHINCHINA	79.51	99.4	12	4K	0	22	5	3				
FUQUENE	79.95	97.4	12	8	2	22	10	4				
TEHERAN	80.43	340.5	12	48	39							
NEW DELHI	81.11	317.3	12	0A	-13						12	12
QUETTA	82.56	326.3	12	21K	1	22	34	1				
KSARA	83.99	353.0	12	29	2	22	49	2			15	39 PP
PORT MORESBY	85.15	239.4	12	33	0						15	48
JERUSALEM	86.06	353.4	12	39	1							
SHIRAZ	86.20	338.4	12	38A	0						15	41 PP
HUANCAYO	94.68	106.9	13	15	-3							
CHARTERS TS.	95.20	235.8	13	20	0							
LWIRO	120.10	358.5	18	49	2						20	13
BANDEIRA	131.61	18.5	19	11K	2							
BROKEN HILL	132.23	358.8	18	59	-11							
BULAWAYO	137.88	358.5	19	15	-5							
BYRD STATION	143.32	170.9	19	25	-5						22	39
CHANGALANE	143.87	352.9	19	30	-1							
WILKES	146.28	226.2	19	35K	0							
KIMBERLEY	146.41	4.4	19	35	0							
PIETERMZBURG	147.27	355.4	19	42K	5							

SOUTH POLE	152.13	180.0	19 43	-1	
MIRNY	152.59	232.3	20 1	16	

AUGUST 18 17.H 46.M 15.S EPICENTRE 62.25-152.43 DEPTH= 37.KM

A=-0.41487 B=-0.21661 C= 0.88372 D=-0.4628 E= 0.8864
G=-0.7834 H=-0.4090 K=-0.4680 HT= -9.6

DEPTH OF FOCUS= 0.001R

SE= 1.97

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
COLLEGE	3.34	36.1	0 52	1					
SITKA	10.09	113.4	2 23	-3	4 14	-5			
MOULD BAY	17.84	25.3	4 7	0					
ALBERNI	20.05	117.7	4 36A	3					
VICTORIA	21.21	117.0	4 45	0					
PENTICTON	22.23	110.4	4 56A	1					
SEATTLE	22.36	116.9	5 0	4	9 11	16			
BANFF	22.74	102.1	4 56A	-4					
RESOLUTE	23.26	34.6	5 5	0					
HUNGRY HORSE	25.44	105.3	5 26	0	10 3	15			
MAGADAN	26.98	290.1	5 40	-1					
PETROPAVLOVK	27.12	272.8	5 43A	1					
BUTTE	27.85	107.1	5 49	1				10 48	
MINERAL	28.71	125.4	5 56A	0					
BOZEMAN	28.80	105.8	5 56	-1					
ALERT	28.84	15.9	5 58A	1	11 19	36		9 5	PCP
UKIAH	29.17	128.9	6 2	2					
CALISTOGA	29.84	128.4	6 6A	0					
RENO	30.10	123.8	6 9A	1					
BERKELEY	30.64	128.7	6 14A	1	11 14	2		11 45	
LICK	31.33	128.3	6 19A	0					
EUREKA	31.69	118.9	6 24	1				9 6	PCP
SALT LAKE C.	32.35	112.6	6 28	0					
DUGWAY	32.40	114.3	6 29A	0	11 41	2			
PRIEST	32.76	128.0	6 33A	1					
FLAMING GRGE	33.29	109.6	6 36	0					
RAPID CITY	33.60	99.5	6 39	0					
PRICE	33.75	112.6	6 41K	1					
YAKUTSK	34.34	305.2	6 45A	0	12 13	3			
NORD	34.43	10.5	6 51	5					
LARAMIE	34.69	105.0	6 49	1					
PASADENA	35.45	126.4	6 56	1	13 8	41	7 19	7 39	*SP
GLEN CANYON	35.63	116.0	6 57	0					
GOLDEN	36.08	106.4	7 1	1	13 5	29			
UGLEGORSK	37.49	280.6	7 12A	0					
Y.-SAKHLINSK	38.69	277.8	7 23A	1					
ALBUQUERQUE	39.54	111.9	7 30	1	13 44	15		9 37	PP
TUCSON	40.02	119.0	7 32	-1	13 27	-9		9 0	PP
MANHATTEN	40.50	98.0	7 38	1	13 45	2			
DUBUQUE	40.65	89.5	7 36	-2	13 48	2			
KIPAPA	40.99	188.0	7 41	0					
HONOLULU	41.11	188.1	7 42	0	13 59	7			
SCHEFFERVLLE	42.16	59.3	7 51A	0					
HAWAII V.OB.	42.83	183.9	7 55	-1	14 38	20			
SCORESBY SD.	43.10	22.0	7 59	0					
WICHITA MTS.	43.24	103.9	8 0	0	14 29	5		9 45	PP
TULSA	43.54	100.1	8 12	10	14 31	3			
FLORISSANT	43.71	92.6	8 3	-1	14 31	0			
ST. LOUIS 1	43.91	92.6	8 4	-1	14 33	0			
LONDON ONT.	44.66	81.0	8 11A	0					
BLOOMINGTON	45.21	88.8	8 14	-2	14 53	1			
C. GIRARDEAU	45.30	93.1	8 15	-1	14 54	1			
DALLAS	45.62	103.5	8 18	-1					
BREBEUF	46.20	72.9	8 21	-2	15 5	-1		10 13	PP
VLADIVOSTOK	46.63	282.6	8 27A	0					
MORGANTOWN	47.92	82.9	8 37	0					
PENNSYLVANIA	47.95	80.2	8 37	0					
TROMSOE	48.26	4.0	8 39	-1					
KEVO	48.27	0.3	8 40	0					
REYKJAVIK	48.65	26.4	8 42K	-1					
HOUSTON	48.89	104.4	8 48	4					
MATUSIRO	48.95	272.0	8 45A	0	15 47	2			

CHANGCHUN	49.05	288.3	8	45A	-1	15	46	-1			10	38 PP
PALISADES	49.60	76.9	8	50	0	15	58	4				
WESTON	49.68	73.8	8	49	-1	15	52	-3				
FORDHAM	49.74	77.0	8	48	-3						19	26
WASHINGTON	49.84	81.1	8	53	1	16	1	3				
KIRUNA	50.11	3.5	8	53	-1	15	55	-6				
APATITY	50.42	357.1	8	56A	0	16	6	0				
SODANKYLA	50.67	0.5	8	58K	0						10	15 PCP
IRKUTSK	50.86	309.5	8	59A	0							
HALIFAX	51.29	66.2	9	1K	-2							
CHAPEL HILL	51.33	85.0	9	3	0							
ABUYAMA	51.55	273.1	9	5A	0							
COLUMBIA	51.98	88.1	9	8	0	16	7	-20			27	30
SKALSTUGAN	53.96	8.4	9	21	-2							
KAJAANI	53.98	359.9	9	23K	0						10	28 PCP
UMEA	54.12	4.0	9	23	-1							
PEKING	56.13	292.4	9	38A	0	17	30	7				
NURMIJARVI	57.54	1.7	9	48K	0							
HELSINKI	57.89	1.5	9	50K	-1							
UPPSALA	57.98	5.9	9	50	-2	17	45	-2				
PAOTOW	58.27	297.4	9	52	-2							
PULKOVO	58.29	358.4	9	52	-2	17	53	2				
SVERDLOVSK	58.49	339.4	9	55K	0							
ESEN BULAK	58.66	311.0	9	57A	1	18	6	10				
GOTEBORG	59.77	9.6	10	2	-2							
SEMIPALATNSK	60.17	324.1	10	7	0							
DURHAM	61.09	18.8	10	13	0	18	46	18				
ZO-SE	61.35	282.7	10	14A	-1	18	27	-4			12	31 PP
KARLSKRONA	61.55	7.6	10	14	-2						10	54 PCP
NANKING	61.63	285.2	10	16A	-1	18	40	6				
COPENHAGEN	61.81	9.6	10	18A	0	19	8	31				
MOSCOW	62.09	353.6	10	19A	-1	18	44	4				
WITTEVEEN	64.09	13.9	10	34	1							
SIAN	64.10	294.4	10	33A	0							
KEW	64.48	18.9	10	35	0	19	11	1				
LANCHOW	64.68	299.4	10	36A	-1	19	16	3				
WARSAW	65.74	4.4	10	43	0	19	27	1	10	49	11	20 PCP
HALLE	65.92	10.6	10	45	0							
COLLMBERG	66.20	9.9	10	45A	-1						13	14 PP
JENA	66.45	11.0	10	47	-1	19	35	1			13	13 PP
DOURBES	66.51	15.9	10	48	0	19	33	-2				
FELDBERG	66.85	13.2	11	6	16							
FOLINIERE	67.08	19.7	10	51	-1							
PARIS	67.49	17.7	10	54	-1							
PRAGUE	67.54	9.1	10	57	2							
PRUHONICE	67.64	9.0	10	55A	0	19	45	-3				
HEIDELBERG	67.68	13.2	10	55	-1							
RACIBORZ	67.77	6.5	10	54	-2						11	19 PCP
KRAKOW	67.88	5.3	10	57	0	19	53	2			11	27 PCP
LWOW	68.24	2.5	10	59	0							
STUTTGART	68.37	12.9	10	59	-1	19	58	1				
STRASBOURG	68.39	14.0	11	1	1							
KASPERSKE H.	68.41	9.8	11	0	0						12	17
TUBINGEN	68.58	13.1	11	3	2							
FRUNSE	68.65	324.7	11	2	0	20	6	5				
EBINGEN	68.92	13.2	11	4	1							
GARCHY	69.07	17.6	11	3	-1						13	35
CHENGTU	69.28	296.4	11	5A	-1	20	10	2				
RAVENSBURG	69.38	12.8	11	7	1							
UZHGOROD	69.39	3.7	11	6	0							
BASLE	69.40	14.3	11	7	1							
VIENNA-H.	69.48	8.0	11	8	1							
BESANCON	69.49	15.5	11	7	0							
BRATISLAVA	69.61	7.5	11	8	0						13	43
BUDAPEST	70.40	6.1	11	14	2	20	10	-11			15	30 PPP
CLERMONT-FD.	70.55	17.9	11	8	-5							
TASHKENT	71.45	328.1	11	18	-1	20	42	9				
LJUBLJANA	71.54	9.5	11	19	0						14	3 PP
CANTON	71.77	284.8	11	21	0	20	43	6				
TRIESTE	71.88	10.2	11	22	1						14	6 PP
ZAGREB	71.88	8.5	11	25	4							
PAVIA	71.90	13.6	11	23	2							
HONG KONG	72.08	283.7	11	24	2	20	50	9				
SAN JUAN	72.21	84.4	11	23	0							
BAGNERES	72.73	20.7	11	26	0							
SERRA PILAR	72.92	27.8	11	28A	0							
SIMFEROPOL	73.02	355.1	11	27	-1	20	52	1				
BELGRADE	73.12	5.3	11	30	1						12	6

COIMBRA	73.85	27.9	11	34K	1						
BAGUIO CITY	74.23	275.2	11	34	-1						
GALERAZAMBA	74.55	96.3	11	42	5	21	18	10			
KUNMING	74.66	294.7	11	38A	0	21	5	-5	14	26	PP
TOLEDO	75.07	24.7	11	40	0				15	5	PP
AQUILA	75.12	10.8	11	41	1	21	19	4			
SOFIA	75.34	3.2	11	42	0				14	41	PP
ROME	75.49	11.6	11	49	7	21	24	5			
MANILA	75.51	273.9	11	46	3				14	26	
ASHKABAD	77.10	335.5	11	52	0						
VANNOVSKAYA	77.14	335.7	11	52	0						
WARSAK DAM	77.75	323.8	11	53	-2						
GRANADA	77.76	25.0	11	58A	3						
MALAGA	78.05	25.8	11	58A	1				14	55	PP
CARACAS	78.69	89.0	11	59	-1	21	45	-8			
DEHRA DUN	79.26	317.2	12	6	3						
MESSINA	79.42	9.6	12	8	4	22	5	4	27	11	SS
CHINCHINA	79.49	99.4	12	4	-1	22	0	-2	15	8	PP
FUQUENE	79.92	97.5	12	6	-1	22	3	-3			
ATHENS	80.07	3.1	12	7K	-1						
TEHERAN	80.47	340.5	12	19	9						
BOGOTA	80.51	98.2	12	14	4	22	17	4			
TRINIDAD	81.14	84.1	12	11	-2						
NEW DELHI	81.14	317.3	12	11A	-2						
BOKARO	82.57	308.3	12	20	-1						
QUETTA	82.60	326.4	12	21	0	22	36	2			
KSARA	84.03	353.1	12	28	0	22	52	4	15	43	PP
PORT MORESBY	85.15	239.5	12	29	-5				15	49	
SHIRAZ	86.24	338.4	12	39A	0	22	58	-12	12 51	16	5 PP
HUANCAYO	94.65	106.9	13	14	-5						
CHARTERS TS.	95.20	235.9	13	21	0						
AREQUIPA	100.26	105.6	13	44	0						
BANGUI	113.20	9.7	18	34	0				19	19	PP
MUNDARING	118.36	254.9	18	43	-1						
LWIRO	120.13	358.6	18	50A	3						
BANDEIRA	131.63	18.6	19	11K	2						
BROKEN HILL	132.26	358.8	19	14	3				21	6	
BULAWAYO	137.91	358.5	19	10	-11				22	3	
SCOTT BASE	142.06	193.0	19	22	-7						
BYRD STATION	143.29	170.9	19	26	-5						
CHANGALANE	143.91	352.9	19	18	-14						
WILKES	146.28	226.2	19	34	-2						
KIMBERLEY	146.44	4.4	19	38	2						
PIETERMZBURG	147.31	355.4	19	42	4						
GRAHAMSTOWN	151.04	1.7	19	49K	6						
SOUTH POLE	152.09	180.0	19	42	-3						
MIRNY	152.59	232.2	20	25	39						

AUGUST 19 18.H 26.M 38.5 EPICENTRE 44.69 81.64 DEPTH= 28.KM

A= 0.10373 B= 0.70575 C= 0.70082 D= 0.9894 E=-0.1454
G= 0.1019 H= 0.6934 K=-0.7133 HT= -3.4

SE= 2.80

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
CHILIK	2.57	245.3	0	42	2	1	12	2					
PRZHEVALSK	3.22	228.0	0	52	2						1	46	SG
ALMATA-2	3.39	246.8	0	55	3						1	4	*SP
ALMATA	3.67	248.9	0	57A	1						2	1	SG
FABRICHNAYA	4.07	249.4	1	3	1								
FRUNSE	5.41	252.4	1	21K	0						2	40	S*
SEMIPALATNSK	5.79	351.2	1	28	2								
NAMANGAN	8.21	246.6	2	0	0						2	15	*SP
TCHIMKENT	9.07	259.0	2	13	1	3	58	4					
DZERGETAL	9.48	238.4	2	19	2								
TASHKENT	9.66	253.9	2	21	1						2	31	*SP
GARM	10.19	240.0	2	27	0								
ESEN BULAK	10.40	75.4	2	29A	-1	4	41	14					
OBI-GARM	10.74	240.3	2	37	2						4	44	
KULYAB	11.22	236.9	2	40	-1						2	53	*SP
DUZHANBE	11.40	242.0	2	43A	-1								
WARSAK DAM	13.21	219.6	3	5	-3								
LAHORE	14.31	206.1	3	19A	-3								
DEHRA DUN	14.62	192.4	3	24	-2	6	1	-7			3	38	PP
NEW DELHI	16.46	193.9	3	45A	-5	6	56	5			3	59	PP

LHASA	16.76	150.5	3	57A	3	7	13	15	4	12		
IRKUTSK	16.80	55.1	3	56A	2	7	2	3			4	9 PP
KYAKHTA	17.65	62.4	4	6	1	7	22	3			4	23 PP
SVERDLOVSK	17.92	320.2	4	6A	-2	7	22	-3				
KABANSK	18.12	57.1	4	13	2	7	38	9				
CHATRA	18.37	164.1	4	5A	-9	7	39	4				
QUETTA	18.55	223.6	4	13A	-3	7	39	0			4	30 PP
ASHKABAD	18.71	257.0	4	17	-1	7	43	1				
LANCHOW	18.94	109.4	4	21A	0	7	56	8			4	34 *SP
KIZYL-ARVAT	19.61	262.6	4	28A	0	8	0	-3			8	19
TOCKLAI	20.78	145.1	4	37	-4						5	38
SHILLONG	20.79	153.1	4	40A	-1						5	52
BOKARO	21.08	169.4	4	46A	2	8	35	3			5	3 PP
PAOTOW	21.24	91.2	4	46A	1	8	43	8				
SEHORE	21.79	191.4	4	53	2	8	48	3			5	15 PP
CHENGTU	22.48	120.9	5	0A	2	9	5	7				
HOWRAH	22.75	163.9	4	53	-8	9	11	8				
CALCUTTA	22.78	163.7	5	3	2	9	14	11				
SIAN	23.40	107.0	5	8A	1						5	23 *SP
CHITTAGONG	23.79	156.1	5	12A	1	9	31	10				
MAKHACH-KALA	24.59	278.1	5	20A	2	9	31	-4				
TEHERAN	24.65	259.3	5	28A	9	9	52	16				
GROZNY	25.76	279.8	5	33A	3	9	56	2			5	44 *SP
PEKING	25.82	88.2	5	32	2	10	3	8				
KUNMING	25.95	131.8	5	33A	2	10	4	6				
KIROVOBAD	26.14	273.6	5	32	-1	10	0	-1				
GORIS	26.57	271.2	5	37A	0						6	22 PP
BOMBAY	26.75	198.8	5	39	0	10	13	2			10	34
TIFLIS	26.87	276.7	5	41	1							
POONA	26.88	196.5	5	40A	0	10	14	1			6	27 PPP
VISHAKHAPTNM	26.92	176.5	5	43K	3	10	32	18			6	34 PP
HYDERABAD	27.31	186.6	5	46	2	10	50	30			12	44 SS
PIATIGORSK	27.42	282.4	5	44	-1						6	55 PPP
SHIRAZ	27.45	246.8	5	45A	0	10	42	20			6	45 PP
MOSCOW	29.76	307.6	6	4	-2	10	57	-2			7	9 PPP
SOTCHI	29.87	282.9	6	7A	0						7	14 PPP
CHANGCHUN	31.01	75.9	6	18A	1	11	26	7				
NANKING	31.46	100.8	6	21A	0	11	30	4	6	34		
MADRAS	31.60	182.7	6	31	9	11	47	19			7	38 PP
YAKUTSK	32.57	40.7	6	30A	-1	11	42	-1			7	43 PP
SIMFEROPOL	33.33	287.6	6	36A	-1	11	53	-2			8	0 PPP
CANTON	33.68	119.2	6	40A	0	12	8	8	6	54	7	47 PP
ZO-SE	33.69	100.1	6	41A	1	12	4	3			7	55 PP
PULKOVO	33.89	314.9	6	41	-1	12	1	-3			7	55 PP
APATITY	33.94	329.1	6	41K	-1	12	3	-1			8	2 PP
PORT BLAIR	34.25	160.5	5	47A	-58	12	11	2			7	41 PP
HONG KONG	34.78	119.2	6	49	-1	12	19	2			8	14 PP
KAJAANI	35.50	322.3	6	59K	3							
VLADIVOSTOK	35.78	74.3	7	0A	2	12	35	2			8	27 PP
KISHINEV	36.28	292.9	7	2A	0	12	39	-2				
SODANKYLA	36.44	327.7	7	3K	-1						15	32
HELSINKI	36.59	315.5	7	5	0							
KSARA	36.62	268.9	7	3A	-2	12	25	-21	7	15	8	9 PP
NURMIJARVI	36.74	316.1	7	5K	-1	12	41	-7			7	41
KEVO	36.80	331.7	7	5	-2							
KHEYS	37.01	353.7	7	9K	1	12	54	2				
IASI	37.06	293.6	7	19	10							
TAIPEI	37.68	107.9	7	12	-2							
BACAU	37.68	292.8	7	25	11							
JERUSALEM	38.18	266.5	7	20	2	13	20	10				
HWALIEN	38.45	109.1	7	25	4						20	44
LWOW	38.61	298.8	7	22	0	13	15	-1				
UMEA	38.78	321.5	7	23	0	13	15	-4			9	6 PP
KIRUNA	38.85	328.0	7	23	-1	13	17	-3			15	56 SS
BUCHAREST	38.92	289.9	7	27	3	13	28	7			9	2 PP
TAWU	39.08	111.7	7	28	2							
HENGCHUN	39.22	112.2	7	30	3							
TROMSOE	39.56	330.8	7	30	0							
WARSAW	39.84	303.2	7	32A	0	13	36	1	7	32	9	5 PP
UZHGOROD	40.03	297.5	7	34	0							
UPPSALA	40.29	315.4	7	36K	0	13	37	-4			16	23 SS
UGLEGORSK	40.58	61.5	7	55	17	13	45	-1			10	39
KRAKOW	41.09	300.3	7	42	0	13	52	-1				
SOFIA	41.43	288.6	7	48	3	14	0	2	7	58	9	28 PP
Y.-SAKHLINSK	41.66	64.3	7	49A	2	14	3	1			8	4 *SP
TIMISOARA	41.68	293.7	7	46	-1						9	30 PP
ABUYAMA	41.91	84.3	7	50A	1							
KARLSKRONA	42.02	310.2	7	50	0							
RACIBORZ	42.14	300.8	7	52	1						9	39 PP

SZEGED	42.20	294.8	8	11	19				9	47 PPP
KECSKEMET	42.24	295.9							10	2 PPP
SKALSTUGAN	42.33	321.6	7	53K	0					
BUDAPEST	42.48	296.9	7	55	1	13	54 -20		9	18 PP
BELGRADE	42.53	292.7	7	56K	2				9	44 PP
KALOCSA	42.85	295.6	7	57	0				17	44
HUPBANOVO	42.87	297.7	8	4	7				9	48 PP
MAGADAN	42.92	44.4	7	56	-1					
MATUSIRO	42.95	80.5	7	57	-1	14	17 -4			
SKOPJE	43.00	288.4	7	56	-2				14	15
BAGUIO CITY	43.17	118.1	8	0	0				17	50
ATHENS	43.21	282.0	8	0A	0	14	25 0			
BRATISLAVA	43.45	298.5	8	1K	-1				12	47
GOTEBORG	43.58	313.1	8	3	0				9	52 PP
MEDAN	43.60	154.9	8	3K	0				9	43
VIENNA-H.	43.88	298.9	8	7	2	14	33 -1		9	51 PP
SARAJEVO	44.23	292.3	8	9	1				10	5
TITOGRAD	44.28	290.0	8	10	2	14	39 -1		9	56 PP
PRUHONICE	44.40	301.8	8	10	1	14	42 0			
TUKUBASAN	44.44	79.9							18	25 SS
PRAGUE	44.44	302.0	8	11	1	14	42 0		10	0 PP
MANILA	44.8:	119.2	8	15	2				10	11 PP
COLLMBERG	44.88	304.0	8	13K	0				27	33
ZAGREB	45.04	295.8	8	17A	2				10	14 PP
KASPERSKE H.	45.29	301.0	8	16	-1					
HALLE	45.43	304.6	8	17	-1	14	46 -11			
CHEB	45.67	302.6	8	20	0	14	55 -5			
JENA	45.85	304.0	8	19	-2	15	0 -3	8 30	10	14 PPP
TRIESTE	46.54	296.5	8	26A	0	15	12 0	8 37	18	52 SS
NORD	47.31	348.6	8	45A	12	15	23 0			
PADOVA	47.84	296.9	8	47	10				10	48 PP
FELDBERG	47.96	304.1	8	47	9			8 58		
WITTEVEEN	47.99	307.9	8	38	0					
STUTTGART	48.09	302.1	8	39	0	15	31 -4	8 49	10	39 PP
HEIDELBERG	48.13	303.0	8	39	0			8 50		
AQUILA	48.21	292.6	8	40	0	15	36 0	8 51	10	44 PP
RAVENSBURG	48.24	300.7	8	40	0			8 50		
TUBINGEN	48.27	301.8	8	40	0			8 51		
EBINGEN	48.48	301.4	8	42	0			8 53		
REGGIO CALA.	48.73	286.5	8	39	-5	15	43 0		10	37 PP
MESSINA	48.75	286.7	8	43	-1	15	44 0	8 52	10	46 PP
FLORENCE X.	48.96	295.2	8	38	-7	15	36 -11		10	41 PP
PRATO	49.01	295.4	8	48	2				12	9 PP
ROME	49.02	292.5	8	46A	0	15	47 0	8 56	10	46 PP
STRASBOURG	49.04	302.3	8	46	0	15	47 -1		10	48 PP
PETROPAVLOVK	49.05	51.2	8	46A	0	15	46 -2		10	44 PP
DE BILT	49.11	307.5	8	51	4	15	53 4		10	51 PP
BASLE	49.60	301.2	8	51	1				26	45
PAVIA	49.65	297.8	8	52	1	16	4 8	9 3	20	13 SSS
NEUCHATEL	50.22	300.8	8	56	1				23	40
DOURBES	50.27	305.3	8	55	0	16	7 2			
BESANCON	50.70	301.5	8	59	0				25	52
ABERDEEN	50.94	315.8				16	13 -1		19	40 SS
MONACO	51.43	296.8	9	5	1					
ISOLA	51.46	297.5	9	5	1					
DURHAM	51.69	312.8	9	7A	1	16	22 -2		11	12 PP
ALERT	51.78	354.3	9	7	0	16	28 2			
PARIS	52.08	304.6	9	9	0	16	27 -3		10	30 PP
GARCHY	52.44	302.7	9	10K	-2				10	29
KEW	52.47	308.6	9	11	-1	16	34 -1		14	16 PCS
SCORESBY SD.	52.86	335.8	9	16	1	16	45 5			
CLERMONT-FD.	53.14	301.0	9	17	0	16	46 2			
JERSEY	54.56	306.8	9	32	5	17	4 1			
TANGERANG	55.39	149.3	9	31K	-2				10	15
DJAKARTA	55.47	149.1	9	32	-2					
BAGNERES	56.34	299.5	9	39	-1				27	44
LEMBANG	56.36	148.5	9	39	-1					
TORTOSA	57.33	297.0	9	45	-2	17	42 2			
THULE	57.65	351.9	10	58	68				13	7 PP
MOULD BAY	58.61	5.8	9	56K	0					
ALICANTE	59.34	295.1	10	2	1	18	4 -2			
TOLEDO	60.74	298.4	10	10	-1	18	26 2	10 27	12	33 PP
RESOLUTE	60.90	358.9	10	14	2					
ALMERIA	61.50	294.8	10	17A	1	18	32 -2		12	38 PP
GUAM	61.57	99.4	10	14	-3				12	44 PP
GRANADA	62.03	295.7	10	21A	1	18	40 -1	10 31	12	45 PP
SERRA PILAR	62.81	301.9	10	26K	1	18	46 -5	10 36	12	49 PP
MALAGA	62.82	295.7	10	24K	-1	18	49 -2		12	46 PP

COIMBRA	63.26	300.9	10	28A	0	18	56	0	10	39	12	52 PP
COLLEGE	64.17	21.1	10	33	-1	19	7	-1			13	7 PP
LISBON	64.60	300.0	10	37A	0	18	40	-33	10	48	11	24 PCP
BENI ABBES	65.39	288.7	10	41	-1	19	24	1			13	7 PP
LWIRO	66.22	240.5	10	46	-1						36	33
BANGUI	67.92	253.5	11	5	7	19	50	-3				
TANANARIVE	70.53	214.2	11	16K	2							
DARWIN	72.17	129.0	11	25	1							
SITKA	74.01	20.0	11	37	3	20	54	-10	11	48		
PONTA DELGDA	75.01	308.4	11	41	1	21	18	3	11	52		
BROKEN HILL	76.08	233.0	11	46A	0							
SCHEFFERVLLE	77.30	341.9	11	52	-1							
PORT MORESBY	79.74	114.1	12	7A	0	22	26	20			12	19 PCP
BULAWAYO	80.61	229.5	12	10A	-1							
LUANDA	81.24	248.4	12	16K	2							
MUNDARING	82.53	150.9	12	20	-1							
BANFF	83.37	10.8	12	23	-2							
ALBERNI	83.61	17.1	12	31	4							
CHANGALANE	83.82	223.3	12	27A	-1				12	38		
PENTICTON	84.55	13.8	12	32	1							
VICTORIA	84.61	16.4	12	33K	1							
BANDEIRA	85.66	244.3	12	36A	-1				12	48		
SEATTLE	85.67	16.0	12	41	4							
HUNGRY HORSE	86.33	10.4	12	41	1						15	42 PP
LONGMIRE	86.63	15.9	12	43	1	23	0	-15				
CHARTERS TS.	87.25	121.8	12	45	0	23	22	1				
PIETERMZBURG	87.46	222.8	12	47	1							
APEBEUF	87.56	342.9	12	47K	1	23	9	-15	12	58	16	19 PP
HONIARA	88.37	104.9	12	49	-1						23	32
BUTTE	88.81	9.9	12	52	0	23	14	-22	13	4	16	33 PP
BOZEMAN	89.33	8.9	12	56	1						14	6
WESTON	90.01	340.3	13	9	11	23	24	-23				
LONDON ONT.	91.32	347.5	13	6	2							
RAPID CITY	91.52	3.5	13	6	1				13	17		
PALISADES	91.91	341.7	13	8	1	23	35	-28	13	19	16	55 PKP
FORDHAM	92.06	341.7	13	19A	12						23	30
MINERAL	92.81	17.6	13	12K	1				13	22		
DUBUQUE	92.92	354.3	13	13A	2				13	22		
PENNSYLVANIA	92.93	344.6	13	12	1							
RENO	93.96	16.5	13	18K	2							
SALT LAKE C.	94.07	10.2	13	58	42				14	8	17	14
FLAMING GRGE	94.19	8.4	13	19	2				13	30		
CALISTOGA	94.22	18.8	13	19A	2							
MORGANTOWN	94.44	345.8	13	20K	2						17	13 PP
DUGWAY	94.50	11.1	13	20A	2							
ADELAIDE	94.67	136.2	13	20	1							
EUREKA	94.73	13.6	13	21	2						17	27 PP
PRICE	95.34	9.6	13	24	2							
LICK	95.68	18.5	13	26K	2				13	36		
BLOOMINGTON	95.82	350.8	13	25	1				13	36		
MANHATTEN	96.48	358.6	13	28A	1				13	39		
FLORISSANT	96.58	353.7	13	29	1				13	40		
BRISBANE	96.64	122.1	13	29	1	24	4	2				
LAWRENCE	96.68	357.6	13	30	2							
ST. LOUIS 1	96.73	353.6	13	30	1				13	40		
PRIEST	97.05	18.0	13	33K	3							
ROLLA	97.59	354.8	13	34	2				13	44		
GLEN CANYON	97.84	10.7	13	35	1							
CHAPEL HILL	97.88	344.3	13	35	1							
PASADENA	99.50	16.6	13	52	11							
TULSA	99.75	357.9	13	43	1	24	16	-1				
COLUMBIA	100.12	345.4	13	55	11						17	54 PP
TOOLANGI	100.12	133.6	13	44	0							
CANBERRA	100.30	129.9	13	45	0							
ALBUQUERQUE	100.40	6.8	13	47	2				13	58	17	58 PP
RIVERVIEW	100.40	127.6	13	36A	-9							
WICHITA MTS.	100.97	0.2	13	49	1	24	25	2			14	5 PP
TUCSON	102.59	10.8	13	55	0						30	13 PKKP
MIRNY	111.25	175.1	18	31	0						28	52
WILKES	112.90	167.8	18	34	0						19	26 PP
TRINIDAD	115.57	319.1	18	42	3						29	18 PS
KARAPIRO	117.86	116.8	18	45	2						19	0 PP
CARACAS	118.15	324.4	18	46	2	25	37	2				
ROXBURGH	118.54	126.9	18	47	2							
CHATEAU	118.61	118.0	18	43	-2							
WELLINGTON	119.34	120.3									31	36 PKS
DUMONT	119.60	157.0	18	46	-1	25	57	17			20	6 PP
FUQUENE	125.39	329.4	19	1	3							

BOGOTA	126.30	329.4	19	5	5					21	9	PP
CHINCHINA	126.52	331.4	19	11	11							
CAPE HALLETT	131.44	155.9	19	11	1							
SCOTT BASE	132.22	163.4	19	12	1							
SOUTH POLE	134.49	180.0	19	3	-12							
BYRD STATION	143.72	173.9	19	30	-2					23	48	
AREQUIPA	143.89	312.6	19	33	1							
ANTOFAGASTA	149.07	303.3	19	44	3							
SANTA LUCIA	155.84	288.1	19	53	2					24	8	

AUGUST 19 23.H 12.M 53.S EPICENTRE -26.59 -70.22 DEPTH= 60.KM

A= 0.30299 B=-0.84261 C=-0.44519 D=-0.9410 E=-0.3384
G=-0.1506 H= 0.4189 K=-0.8954 HT= 2.9

DEPTH OF FOCUS= 0.004R

SE= 1.57

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
COPIAPO	0.77	188.6	0	17	1	0	26	-2					
ANTOFAGASTA	2.88	356.4	0	45	0								
SANTA LUCIA	6.84	182.9	1	38	-2	3	7	10			1	48	PP
AREQUIPA	10.15	353.1	2	24	-1	4	13	-5					
BOGOTA	31.25	352.6	6	20A	4	11	23	6					
CHINCHINA	31.81	349.8	6	21A	0	11	30	5	6	39			
FUQUENE	32.05	353.4	6	28	5				6	50			
CARACAS	37.01	5.4	7	6A	1	12	46	0					
GALERAZAMBA	37.47	351.8	7	15	6	13	0	7					
TRINIDAD	38.00	14.2	7	15	2						8	45	PP
SAN JUAN	44.88	5.5	8	9	-1	14	33	-10	8	27	9	57	PP
BYRD STATION	57.30	189.0	9	42	-2						10	12	
COLUMBIA	61.12	349.8	10	8	-2								
CHAPEL HILL	62.73	351.9	10	20	-1						18	43	
SOUTH POLE	63.56	180.0	10	25	-1								
DALLAS	64.29	335.3	10	30	-1								
C. GIRARDEAU	66.11	343.2	10	41K	-2								
WICHITA MTS.	66.63	334.8	10	44	-2	19	31	0			13	13	PP
TULSA	66.69	337.6	10	45	-1						11	5	*SP
BLOOMINGTON	67.18	346.3	10	47	-2	19	35	-3					
ROLLA	67.30	341.5	10	49K	-1	19	38	-1	11	0			
PALISADES	67.34	357.0	10	51	1	19	38	-2			31	10	
PENNSYLVANIA	67.42	353.7	10	51	0								
ST. LOUIS 1	67.54	343.1	10	50	-2	19	39	-3					
FLORISSANT	67.72	343.1	10	51	-2								
WESTON	68.63	359.1	10	58	0	19	57	2					
MANHATTEN	69.93	338.5	11	5K	-1	20	11	1					
LONDON ONT.	70.01	351.5	11	6	-1								
TUCSON	70.15	324.1	11	6	-2								
ALBUQUERQUE	70.16	328.9	11	8	0				11	28	12	12	
SCOTT BASE	70.63	190.9	11	10	-1								
BREBEUF	71.81	357.5	11	18	0	20	35	3	11	36	14	5	PCP
CAPE HALLETT	73.21	196.1	11	25	-1								
GOLDEN	73.64	332.4	11	29	1								
GLEN CANYON	74.24	326.6	11	33	1								
LARAMIE	75.08	333.2	11	38	1						11	57	
BOULDER CITY	75.13	323.9	11	38	1								
PASADENA	75.60	320.5	11	40	0								
PRICE	75.96	328.8	11	42	0								
FLAMING GRGE	76.38	330.5	11	45	1								
RAPID CITY	76.54	336.2	11	45	0				12	6			
SALT LAKE C.	77.36	328.9	11	49	-1				12	10	13	21	
DUGWAY	77.37	327.9	11	50K	0								
BANDEIRA	77.80	100.6	11	55K	3				12	15			
EUREKA	78.36	325.5	11	56	1								
PRIEST	78.45	320.4	11	57K	1								
MAWSON	79.82	163.5	12	2K	-1	21	57	-3					
LICK	79.85	320.7	12	4K	1								
RENO	80.41	323.3	12	7K	1								
BOZEMAN	80.93	332.3	12	9	0				12	29			
SCHEFFERVLLE	81.13	2.0	12	10A	0								
CALISTOGA	81.29	321.1	12	11K	0								
BUTTE	81.85	331.7	12	15	1				12	35			
MINERAL	81.95	322.9	12	14A	0								
DUMONT	84.25	191.6	12	25	-1								
HUNGRY HORSE	84.30	332.3	12	26	0								

MIRNY	86.28	173.4	12	34	-2							21	14	
LONGMIRE	86.60	327.3	12	36K	-2							13	3	*SP
WILKES	87.36	180.3	12	42K	1									
PENTICTON	87.44	330.2	12	41K	-1									
MALAGA	88.30	47.2	12	48A	2	23	27	3						
VICTORIA	88.62	327.8	12	47K	0									
BULAWAYO	88.67	111.8	12	49K	1									
TUAI	89.51	226.2	12	53	2									
WELLINGTON	89.58	223.1	12	53	1									
ROXBURGH	90.17	217.3	12	55	0									
CHATEAU	90.31	225.1	12	56K	1									
TOLEDO	90.34	44.7	12	57	2	23	51	8	13	15		16	7	PP
KAIMATA	90.84	220.6	13	23	25									
BANGUI	90.90	85.6	12	59	1				13	8				
COBB RIVER	90.94	222.3	13	0	2									
KARAPIRO	91.04	226.2	12	59K	0									
TARATA	91.05	224.6	12	59	0									
BROKEN HILL	91.19	106.7	13	1	2									
LWIRO	97.06	96.1	13	39	13									
GARCHY	98.67	41.3	13	53	20									
PARIS	99.10	39.7	13	57	22									
DOURBES	100.93	39.3	14	5	21	24	9	-7						
KASPERSKE H.	105.79	42.7	17	38	777							18	51	PP
COLOMBERG	106.27	40.5	18	19	777							18	31	
PRUHONICE	106.70	42.2	17	24	777									
COLLEGE	108.69	333.9	14	17	777									
UMEA	113.72	29.0	18	32	1									
KIRUNA	114.57	24.7	18	34	1									
SODANKYLA	116.86	25.5	18	38	1									
KAJAANI	117.01	29.2	18	39	1									
CHARTERS TS.	121.65	221.0	18	48	1									
PORT MORESBY	129.05	230.5	19	3A	2									
SHIRAZ	129.84	72.5	19	5K	2				19	35		22	20	PP
TEHERAN	129.85	64.5	19	11	8									
QUETTA	142.31	74.3	19	23	-2									
GUAM	144.78	255.1	19	28	-2							23	38	SKP
POONA	145.95	96.1	19	36A	4							19	56	
WARSAK DAM	146.32	68.0	19	32	0									
LEMBANG	146.71	176.1	19	36	3									
TANGERANG	147.29	174.2	19	38	4									
LAHORE	148.71	72.4	19	39	3									
NEW DELHI	151.10	78.5	19	42K	2							20	10	
DEHRA DUN	151.91	74.9	19	45	4									
MATUSIRO	153.91	299.3	19	45	1									
MEDAN	154.77	153.2	19	55A	10									
CHANGCHUN	158.69	327.8	19	51	1							24	10	PP
SHILLONG	163.88	89.6	19	57K	2									
PEKING	165.58	339.9	19	59K	2									
LANCHOW	169.29	26.9	20	4K	4									
NANKING	170.44	306.9	20	2A	2									
SIAN	172.33	5.3	20	4K	3							25	37	PP
KUNMING	173.49	101.5	20	4K	2							25	48	PP
CHENGTU	173.51	50.0	20	4K	2							25	49	PP
HONG KONG	174.15	224.1										21	33	PKP2
CANTON	175.24	223.6	20	5	3							25	34	PP

AUGUST 21 18.H 9.M 3.S EPICENTRE 41.23 15.01 DEPTH= 25.KM

A= 0.72860 B= 0.19532 C= 0.65650 D= 0.2589 E=-0.9659
G= 0.6341 H= 0.1700 K=-0.7543 HT= -2.1

SE= 2.71

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
AQUILA	1.65	313.6	0	34	6								
ROME	2.01	290.4	0	41	8								
MESSINA	3.05	171.9	0	50K	2						1	33	
REGGIO CALA.	3.16	170.8	0	56	6						1	39	
TITOGRAD	3.40	67.9	0	49	-4						1	47	SG
SARAJEVO	3.66	42.6	1	0	3	2	25	45					
PRATO	3.92	313.9	1	0	-1	2	22	35					
BOLOGNA	4.24	321.7	1	10	5						1	27	PG
TRIESTE	4.52	348.7	0	13	-56	1	12	-50			1	30	S*
ZAGREB	4.65	8.4	1	13	2						2	39	SG
PADOVA	4.77	332.4	1	14	1	2	10	2			1	46	

SKOPJE	4.88	79.1	1	15	1	2	22	11			2	55	SG
CHIAVARI	5.20	308.4	0	12	-67	1	23	-56					
BELGRADE	5.37	46.2	1	22	1						1	44	PG
PAVIA	5.81	314.8	1	38	11	2	56	22			3	48	
KALOCSA	6.03	27.1	1	34	4	2	37	-3			1	44	P*
MONACO	6.14	296.6	1	32	U						3	7	SG
SZEGED	6.24	34.7									1	44	P*
SOFIA	6.38	73.9	1	37	2	3	9	21			3	30	S*
TIMISOARA	6.39	42.9	1	33	-3						2	2	PG
ISOLA	6.56	299.4	1	38	0								
KECSKEMET	6.62	29.1	1	49	10	3	7	13			2	7	P*
CHUR	6.87	326.8	1	43	1	3	3	2					
BUDAPEST	6.88	23.3	1	40	-2	3	7	6			1	58	P*
HURBANOVO	7.02	17.9	1	51	7	3	13	8			2	7	P*
VIENNA-H.	7.09	7.4	1	45	U	3	11	5			2	3	P*
BRATISLAVA	7.10	11.4	1	43	-3	3	8	2			2	17	PG
ATHENS	7.47	113.0	1	50K	-1	3	11	-5			3	32	SS
RAVENSBURG	7.60	331.4	1	52	0								
KASPERSKE H.	7.97	353.2	1	57	-1								
EBINGEN	8.17	330.3	1	59	-1						3	45	
NEUCHATEL	8.18	317.6	2	1	0						3	30	
CAMPULUNG	8.36	57.7	2	5K	2	4	2	24			4	11	S*
TUBINGEN	8.43	332.0	2	3	-1								
STUTTGART	8.56	333.7	2	5	-1	3	37	-6					
BUCHAREST	8.76	64.9	2	9	0	3	41	-7	2	24	4	52	SG
PRUHONICE	8.76	358.1	2	7	-2	3	51	3					
BESANCON	8.84	315.9	2	8	-2	3	54	4			4	7	
PRAGUE	8.86	357.6	2	7	-3								
STRASBOURG	8.97	327.5	2	11	0	3	51	-2			2	23	PP
UZHGOROD	9.03	32.5	2	14	2						4	57	
CHEB	9.04	349.2	2	12	-1	3	45	-10			4	14	
RACIBORZ	9.13	13.1	2	14	0	4	9	12			2	24	PP
HEIDELBERG	9.29	333.7	2	15	-1								
KRAKOW	9.47	19.6	2	21	3	4	18	13			2	26	PP
CLERMONT-FD.	9.76	301.7	2	24	2	4	28	16					
JENA	9.99	347.4	2	25	-1	4	21	3			5	39	SG
FELDBERG	10.09	335.3	1	59	-28								
BACAU	10.11	54.1	2	33	6	4	34	13			5	54	SG
COLLMBERG	10.17	352.8	2	27	-1						5	42	SG
GARCHY	10.48	309.3	2	33	1						3	47	
HALLE	10.49	349.5	2	34	2	4	23	-7					
ISTANBUL KA.	10.61	86.2	2	34	0								
LWOW	10.67	33.3	2	36	1								
IASI	10.81	52.3	2	38	1						6	4	SG
TORTOSA	10.97	272.7	2	38	-1	4	1	-41					
BAGNERES	11.19	284.4	2	43	1								
DOURBES	11.47	324.2	2	48	2	4	56	2					
KISHINEV	11.49	55.1	2	44	-2						5	12	
PARIS	11.65	314.8	2	47	-1						5	45	
WARSAW	11.75	18.4	2	52	2	5	11	10			2	59	PP
ALICANTE	12.26	261.5	2	55	-1	5	18	5			3	2	PP
DE BILT	12.79	331.6	3	10	6								
FOLINIERE	13.29	309.8	3	13	3								
JERSEY	14.42	309.2	2	41	-44								
SIMFEROPOL	14.45	68.7	3	24	-1						6	31	
TOLEDO	14.55	271.0	3	23	-4	6	25	17			3	37	PP
COPENHAGEN	14.56	354.2	3	30	3	6	30	21					
KEW	14.70	319.3	3	29	0	6	29	17					
KARLSKRONA	14.95	1.3	3	36	4								
GRANADA	14.98	260.4	3	32A	0	6	35	17			4	45	
MALAGA	15.74	259.7	3	41A	-1	6	36	0			4	1	PPP
GOTEBORG	16.61	354.3	4	2	9								
DURHAM	17.45	326.5	4	10K	6	7	29	13					
SERRA PILAR	17.77	277.5	4	14A	6	7	30	7			4	28	PP
COIMBRA	17.79	274.4	4	10K	2	7	27	4					
BENI ABBES	17.79	236.9	4	7	-1								
KSARA	18.11	107.4	4	15A	3	7	45	15			4	32	PP
SOTCHI	18.39	74.4	4	16	1						7	45	SS
LISBON	18.67	270.2	4	28	9	8	4	21					
UPPSALA	18.72	4.1	4	18	-1	7	47	3					
JERUSALEM	18.75	113.7	4	20	0	7	37	-8					
ABERDEEN	19.39	331.1	4	31	4	8	6	7			10	7	
HELSINKI	19.95	14.7	4	33	0								
NURMIJARVI	20.21	13.9	4	36	0	8	11	-6					
MOSCOW	20.73	37.9	4	42A	0	8	28	1			5	22	PPP
PULKOVO	20.87	22.0	4	42	-1	8	27	-3			5	15	PP
TIFLIS	22.28	78.8	5	1A	4						9	10	
SKALSTUGAN	22.45	356.8	5	0	1								
UMEA	22.84	6.0	5	4	1	9	10	4			14	48	

GORIS	23.87	83.8	5	15K	2	9	31	7		
KAJAANI	24.06	13.7	5	15	0	9	22	-6		
KIRUNA	26.82	4.6	5	41	0	10	13	-1	6	29 PP
SODANKYLA	26.97	9.9	5	42K	0					
APATITY	28.23	14.9	5	54A	0	10	39	3	6	45 PP
TROMSOE	28.54	2.9	5	55	-1					
TEHERAN	28.86	89.0	6	1	2	10	58	12		
KEVO	29.28	8.5	6	4	1					
SIDA	29.66	330.7	6	7	1					
REYKJAVIK	31.29	329.5	6	22	1					
PONTA DELGDA	31.40	277.2				11	30	3	13	49 SSS
SHIRAZ	32.44	98.8	6	32	1	11	44	1	7	58 PP
SVERDLOVSK	33.03	46.1	6	36	0	11	45	-7		
SCORESBY SD.	34.82	339.3	6	54	3					
BANGUI	36.83	174.0	7	8	0				8	30 PP
TASHKENT	40.22	71.3	7	37	0	13	48	6	16	51
QUETTA	43.03	87.7	8	1	1	14	27	3		
FRUNSE	43.50	67.2	8	6K	2	14	36	6	17	45 SS
WARSAK DAM	44.69	80.2	8	14	1					
SEMIPALATNSK	45.04	55.2	8	17	1					
LWIRO	45.06	160.3	8	17	1				34	21
ALERT	47.74	350.0	8	39K	2					
LAHORE	47.90	81.7	8	40	1					
DEHRA DUN	51.29	81.0	9	5	0				19	31
NEW DELHI	51.54	83.4	9	9K	3	16	27	3		
SCHEFFERVLLE	53.29	314.4	9	19A	-1					
POONA	54.71	95.9	9	29	-1				19	57
HALIFAX	55.53	301.9	9	36	0					
ESEN BULAK	56.40	55.2	9	43K	1					
BROKEN HILL	56.78	164.4	9	45	0					
CHATRA	59.92	79.4	10	11K	4	18	22	6		
BOKARO	60.59	83.1	10	7	-4					
LHASA	61.22	74.6	10	17K	1	18	37	5		
BREBEUF	61.35	306.8	10	17K	0					
BULAWAYO	62.34	165.6	10	24A	1					
BERMUDA	62.34	290.0	10	22	-1	18	48	1		
SHILLONG	64.11	77.9	10	33K	-2					
YAKUTSK	64.52	28.3	10	37K	-1					
CHITTAGONG	65.95	80.8	10	49	2					
PENNSYLVANIA	66.51	304.2	10	51	1					
LANCHOW	66.60	62.0	10	53K	2	19	46	7		
PAOTOW	67.97	54.9	11	1	2	20	0	4		
MORGANTOWN	68.49	304.2	11	4A	1					
CHANGALANE	69.04	163.5	11	4	-2					
CHENGTU	69.85	66.6	11	13K	2	20	22	4		
CHAPEL HILL	70.12	300.6	11	13	0					
KIMBERLEY	70.21	170.9	11	15K	2					
SIAN	71.03	60.9	11	20K	2	20	36	4		
PEKING	72.03	52.4	11	25	1	20	46	3		
KUNMING	72.29	72.0	11	26	0	20	48	2		
COLUMBIA	72.57	300.0	11	29	2					
BLOOMINGTON	72.77	307.1	11	29A	0					
DUBUQUE	73.07	311.9	11	31A	1					
COLLEGE	73.39	352.4	11	33	1				14	7
CHANGCHUN	74.72	44.7	11	42	2	21	16	3		
FLORISSANT	75.32	308.8	11	43	0					
ST. LOUIS 1	75.34	308.6	11	44	0					
C. GIRARDEAU	75.80	307.2	11	46	0					
ROLLA	76.82	309.0	11	53	1					
BANFF	78.38	330.8	12	1K	0					
MANHATTEN	78.60	312.5	12	3A	1					
VLADIVOSTOK	78.62	41.8	12	2	0	21	57	1		
NANKING	78.80	57.2	12	5	2	22	2	4		
HUNGRY HORSE	80.09	328.3	12	11	1					
TULSA	80.45	309.7	12	13	1					
Y.-SAKHLINSK	80.61	33.3	12	15	2					
ZO-SE	80.96	56.5	12	15	1	22	23	3		
BOZEMAN	80.98	325.0	12	17	2					
CANTON	81.06	67.3	12	18	3	22	29	8		
BUTTE	81.35	326.0	12	18	2				15	22
PENTICTON	81.39	331.9	12	19K	2					
HONG KONG	82.16	67.4	12	21	0	22	36	3		
WICHITA MTS.	82.91	310.5	12	27	3				15	38 PP
VICTORIA	83.39	333.6	12	29	2					
FLAMING GRGE	83.94	321.0	12	32	2					
SALT LAKE C.	85.22	322.4	12	38	2					
PRICE	85.65	321.1	12	40	2					
DUGWAY	86.11	322.7	12	42K	1					
MATUSIRO	86.76	42.4	12	45A	1	23	17	-1		

EUREKA	88.11	324.2	12 53	3				
RENO	89.71	326.7	13 4A	6				
TUCSON TELE.	91.34	316.6	13 7	2				
CHINA LAKE	91.86	323.2	13 12	4			13 24	
MIRNY	122.60	152.3	18 55	1				
CHARTERS TS.	133.76	78.1	19 19	4				
BYRD STATION	137.62	190.6	19 21	-2				
DUMONT	140.77	149.0	19 26	-2				

AUGUST 21 18.H 19.M 32.5 EPICENTRE 41.25 15.05 DEPTH= 28.KM

A= 0.72823 B= 0.19578 C= 0.65677 D= 0.2596 E=-0.9657
G= 0.6343 H= 0.1705 K=-0.7541 HT= -2.1

SE= 2.95

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
AQUILA	1.65	312.4	0 28	1				
TARANTO	1.84	114.2	0 27	-3				
ROME	2.03	289.6	0 34A	1				0 56
MESSINA	3.07	172.6	0 47K	-1				1 31
REGGIO CALA.	3.18	171.4	0 55	6				1 42
TITOGRAD	3.36	68.0	0 52	0				1 54 SG
SARAJEVO	3.62	42.5	0 55	0	2 3	25		
FLORENCE X.	3.78	313.3			1 43	1		
PRATO	3.93	313.4	1 8	8	2 7	21		
ROLOGNA	4.25	321.2	1 10	6				1 41
TRIESTE	4.50	348.3	1 8	0				2 33 SG
ZAGREB	4.62	8.1	1 11	1	2 18	15		1 28 PG
PADOVA	4.76	332.0	1 13	1	2 5	-2		1 29 PG
SKOPJE	4.85	79.3	1 14	1	2 20	11		2 50 SG
CUGLIERI	5.04	259.9	0 58	-18				1 21
CHIAVARI	5.22	308.0	1 13	-5	2 33	15		1 31 PG
BELGRADE	5.33	46.1	1 19A	-1	2 35	14		1 42 PG
PAVIA	5.82	314.4	1 35	8				3 36
KALOCSA	6.00	26.9			2 22	-16		1 34 P*
MONACO	6.15	296.3	1 30	-1				3 4 SG
SZEGED	6.21	34.6						1 44 PG
SOFIA	6.34	74.0	1 35	1	3 14	28		3 40 S*
TIMISOARA	6.36	42.8						1 59 PG
ISOLA	6.58	299.1	1 36	-1				
KECSKEMET	6.59	29.0			2 52	0		2 4 PG
BUDAPEST	6.85	23.2	1 47	6				3 1 S*
CHUR	6.87	326.5	1 41	0	3 1	2		
HURBANOVO	6.99	17.7	1 51	8	2 44	-19		1 59 P*
VIENNA-H.	7.07	7.2	1 43	-1	3 9	5		3 54 SG
BRATISLAVA	7.08	11.2	1 42	-2	3 4	-1		2 16 PG
ATHENS	7.45	113.2	1 47A	-2	3 13	-1		3 31 SS
RAVENSRURG	7.60	331.1	1 51	0				3 14
KASPERSKE H.	7.95	353.0	1 54	-2				
EBINGEN	8.17	330.1	1 56	-3				2 48
NEUCHATEL	8.18	317.4	1 58	-2	3 29	-3		
CAMPULUNG	8.32	57.8	2 2	1				2 42
TUBINGEN	8.43	331.8	2 2	-1				3 30
STUTTGART	8.56	333.5	2 2	-3				2 26
BUCHAREST	8.72	65.0	2 8	1	3 58	12		2 14 P*
PRUHONICE	8.74	357.9	2 5	-2	3 45	-1		
PRAGUE	8.84	357.4	2 2	-7				
BESANCON	8.85	315.7	2 5	-4				3 41
STRASBOURG	8.96	327.3	2 8	-2	3 51	-1		2 18 PP
NIEDZIKA	8.98	22.6	2 11	0	3 59	7		
UZHGOROD	8.99	32.4	2 13	2				4 41
CHEB	9.03	349.0	2 10	-1				4 20
RACIBORZ	9.11	12.9	2 13	1				2 26 PP
HEIDELBERG	9.29	333.5	2 12	-3				3 52
KRAKOW	9.44	19.5	2 18	1	4 10	7		
CLERMONT-FD.	9.77	301.5	2 23	1	4 23	11		
JENA	9.98	347.2	2 22	-2	4 13	-4		5 38 SG
BACAU	10.07	54.1	2 37	11				5 39
FELDBERG	10.09	335.1	1 58	-28				2 44
COLLMBERG	10.16	352.7	2 24	-3				5 40 SG
HALLE	10.48	349.3	2 31	0	4 39	10		
GARCHY	10.49	309.1	2 34	3				5 12
ISTANBUL KA.	10.58	86.3	2 37	4				
IASI	10.77	52.3	2 35	0				5 46

TORTOSA	11.00	272.6	2	42	4						
BAGNERES	11.21	284.3	1	40	-61					3	30
KISHINEV	11.46	55.1	2	45	0					5	0
DOURBES	11.47	324.0	2	42	-3	4	50	-3			
PARIS	11.66	314.7	2	48	1					5	16
WARSAW	11.72	18.4	2	49	1					2	57 PP
ALICANTE	12.29	261.5	2	57	1	5	18	5			
DE BILT	12.78	331.5	3	6	4						
WITTEVEEN	12.90	336.7	3	4	0						
FOLINIERE	13.30	309.7	3	9	0						
ALMERIA	14.30	257.8	3	22	0	6	26	25			
SIMFEROPOL	14.41	68.8	3	22	-2						
JERSEY	14.44	309.1								4	28
TOLEDO	14.58	270.9	3	25	-1	6	16	8		3	35 PP
KEW	14.70	319.2	3	26	-2	6	27	16			
KARLSKRONA	14.93	1.2	3	34	3						
GRANADA	15.01	260.4	3	33A	1	6	42	24			
MALAGA	15.78	259.7	3	44A	2	6	40	4		4	4 PPP
GOTEBORG	16.59	354.2	3	57	5	7	13	18			
DURHAM	17.45	326.4	4	7K	4	7	26	12			
COIMBRA	17.82	274.4	4	11K	4	7	30	7		4	33 PP
BENI ABBES	17.83	236.9	4	5	-2	7	33	10			
KSARA	18.08	107.5	4	20	9	7	41	12		4	39 PP
SOTCHI	18.35	74.5	4	15	1						
UPPSALA	18.70	4.1	4	16	-2	7	47	5		9	0 PCP
LISBON	18.70	270.2	4	23	5	7	59	16		8	16 SS
JERUSALEM	18.73	113.8	4	16	-3	7	32	-11			
ABERDEEN	19.39	331.1	4	33	7	7	57	-1		6	54
HELSINKI	19.92	14.6	4	30	-2						
NURMIJARVI	20.18	13.9	4	33K	-2	8	9	-6			
MOSCOW	20.70	37.9	4	39A	-1					5	13 PPP
PULKOVO	20.84	22.0	4	40	-2	8	28	0		5	3 PP
TIFLIS	22.25	78.9	5	2K	6	9	8	14		5	24 PP
SKALSTUGAN	22.43	356.8	4	56	-2						
UMEA	22.82	5.9	5	1	0	9	4	0			
GORIS	23.83	83.8	5	12K	1	9	28	6			
KAJAANI	24.03	13.7	5	13	0	9	31	5			
KIRUNA	26.80	4.5	5	37	-2					10	30
SODANKYLA	26.94	9.9	5	39	-2	10	16	2			
APATITY	28.21	14.8	5	51K	-1	10	37	2			
TROMSOE	28.52	2.8	5	52	-3						
TEHERAN	28.83	89.0	5	58	0						
KEVO	29.26	8.5	5	31	-31						
SIDA	29.66	330.6	6	5	0						
REYKJAVIK	31.29	329.5	6	21	1						
SHIRAZ	32.41	98.9	6	28	-1	11	39	-2	6 43	11	58 *SS
ASHKABAD	33.27	81.2	6	39	2						
SCORESBY SD.	34.81	339.2	6	51	1						
BANGUI	36.84	174.1	7	5	-2					8	27 PP
TASHKENT	40.18	71.3	7	37	2	13	44	4		9	17 PP
NORD	41.93	353.4	7	50	0	14	9	3			
QUETTA	43.00	87.8	7	57	-1	14	29	7		38	50 PKPPKP
WARSAK DAM	44.66	80.3	8	12	0	14	50	4			
LWIRO	45.07	160.4	8	14A	-1						
ALERT	47.73	350.0	8	37	1						
LAHORE	47.87	81.8	8	36	-1						
THULE	48.79	341.8	8	46	2						
NEW DELHI	51.51	83.5	9	5K	0	16	25	3		10	54 PP
BOMBAY	53.69	96.3	9	35	14	17	0	8		20	43
HALIFAX	55.55	301.9	9	36	1						
RESOLUTE	55.62	342.4	9	40	5						
ESEN BULAK	56.36	55.2	9	42K	1	17	33	5			
BROKEN HILL	56.79	164.4	9	42	-2						
IRKUTSK	58.40	46.2	9	55K	0						
MOULD BAY	59.25	348.5	10	1	0						
LHASA	61.18	74.6	10	17A	3	18	35	5			
BREBEUF	61.37	306.8	10	16	0	18	34	1		12	34 PP
VISHAKHAPTNM	62.29	90.2	10	24	2	18	50	6			
BULAWAYO	62.36	165.6	10	20	-2						
MADRAS	62.88	96.5	10	33	7	19	1	9		12	56 PP
PALISADES	63.92	302.6	10	31	-1					19	49 SCS
FORDHAM	63.98	302.4	10	25	-8	19	13	7			
SHILLONG	64.08	77.9	10	30K	-3						
YAKUTSK	64.49	28.4	10	34	-2						
CHITTAGONG	65.91	80.8	10	51	6				11 4		
PENNSYLVANIA	66.53	304.2	10	47	-2						
LANCHOW	66.56	62.0	10	50	1	19	44	7			
TANANARIVE	67.02	146.5	10	55	3					11	13 PCP

WASHINGTON	67.11	302.2	10	55	2					
LONDON ONT.	67.25	307.8	10	54	0					
PAOTOW	67.93	55.0	11	0A	2	19	58	4		
MORGANTOWN	68.50	304.2	11	2A	0					
CHANGALANE	69.05	163.5	11	3	-2					
CHENGTU	69.82	66.6	11	12A	2	20	20	4		
CHAPEL HILL	70.13	300.6	11	12	0					
KIMBERLEY	70.22	170.9	11	10	-2					
SIAN	70.99	60.9	11	19A	2	20	35	5		
PEKING	72.00	52.4	11	25A	2	20	43	2		
KUNMING	72.25	72.0	11	26	2	20	49	5		
COLUMBIA	72.59	300.0	11	28	2					
BLOOMINGTON	72.78	307.1	11	25	-2					
TRINIDAD	72.88	269.2	11	30	2					
DUBUQUE	73.08	311.9	11	28	-1					
MAGADAN	73.14	21.8	11	31	1	21	0	6		
COLLEGE	73.37	352.5	11	30	-1	20	56	-1		
CHANGCHUN	74.68	44.7	11	39A	0	21	25	13		
FLORISSANT	75.33	308.9	11	40	-2					
ST. LOUIS 1	75.36	308.7	11	42	0					
C. GIRARDEAU	75.81	307.3	11	42	-3					
ROLLA	76.83	309.0	11	49	-2					
CARACAS	77.15	272.7	11	53K	0	21	53	14		
BANFF	78.38	330.8	11	58	-1					
VLADIVOSTOK	78.59	41.8	12	1A	1	21	56	2	14	57 PP
MANHATTEN	78.61	312.5	11	59	-2					
NANKING	78.76	57.2	12	4A	3	21	57	1		
HUNGRY HORSE	80.09	328.3	12	8	-1	22	15	5		
TULSA	80.46	309.7	12	10	-1	22	15	1	15	9 PP
Y.-SAKHLINSK	80.58	33.3	12	10A	-1				22	19 PCS
ZO-SE	80.92	56.6	12	15A	2	22	21	3		
BOZEMAN	80.98	325.0	12	13	0					
CANTON	81.03	67.3	12	16	2	22	25	5		
BUTTE	81.35	326.1	12	15	0				15	20 PP
PENTICTON	81.39	331.9	12	13	-2					
LARAMIE	81.81	319.1	12	18	0					
HONG KONG	82.12	67.4	12	21	2	22	36	5	27	12 SS
MEDAN	82.86	91.5	12	23K	0					
WICHITA MTS.	82.92	310.5	12	23	0	22	46	7	15	40 PP
GOLDEN	82.92	317.9	12	23	0	22	56	17		
GALERAZAMBA	83.23	278.3	12	24	-1	23	7	25		
VICTORIA	83.38	333.7	12	25	-1					
SEATTLE	83.75	332.6	12	29	1					
FLAMING GRGE	83.94	321.1	12	29	0					
HOUSTON	84.56	305.0	12	35	3					
SALT LAKE C.	85.22	322.4	12	35	0					
LUBBOCK	85.60	311.7	12	38	1					
PRICE	85.65	321.1							28	27
DUGWAY	86.11	322.7	12	38A	-1					
BOGOTA	86.32	272.9	12	43	3				29	1 SS
MATUSIRO	86.73	42.5	12	52	10	23	21	5		
ALBUQUERQUE	87.09	315.5	12	44	0					
CHINCHINA	87.26	274.2	12	46	1	23	25	4		
TUKUBASAN	87.93	41.5							24	35 PS
EUREKA	88.11	324.2	12	49	0					
GLEN CANYON	88.12	320.0	12	48	-1					
RENO	89.71	326.8	12	59K	2					
MINERAL	89.74	328.4	12	56	-1					
TUCSON TELE.	91.34	316.6	13	4	0					
TUCSON	91.47	316.6	13	5	0				27	17
CALISTOGA	91.60	328.1	13	13K	8					
CHINA LAKE	91.87	323.3	13	6	-1					
BERKELEY	92.13	327.5	13	15K	7	24	13	7	16	50 PP
PRIEST	92.94	325.5	13	14K	2					
SANTA LUCIA	108.23	241.4							28	14
MIRNY	122.61	152.3	18	51	-2					
SOUTH POLE	131.05	180.0	19	7	-2					
CHARTERS TS.	133.73	78.1	19	13	-1					
BYRD STATION	137.65	190.6	19	14	-7					
DUMONT	140.77	148.9	19	27	0				20	56
SCOTT BASE	141.49	170.7	19	31	3					
TOOLANGI	141.95	101.2	19	30	1					
CANBERRA	143.71	95.9	19	40	8					
RIVERVIEW	144.71	92.4							22	51 PP

AUGUST 21 18.H 44.M 57.S EPICENTRE 41.18 15.09 DEPTH= 36.KM

A= 0.72877 B= 0.19654 C= 0.65594 D= 0.2604 E=-0.9655
G= 0.6333 H= 0.1708 K=-0.7548 HT= -2.1

DEPTH OF FOCUS= 0.000R

SE= 2.67

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
AQUILA	1.72	313.2	0 27	-1				
TARANTO	1.78	112.8	0 28	-1				
ROME	2.09	290.9	0 32A	-1				0 51
MESSINA	3.00	173.1	0 45K	-1	1 17	-5		1 29 S*
REGGIO CALA.	3.11	171.9	0 49	1				1 28
TITOGRAD	3.36	66.8	0 52	1				1 2 PG
SARAJEVO	3.65	41.5	0 54	-1				1 14 PG
FLORENCE X.	3.85	313.7			1 42	-1		
PRATO	4.00	313.7	1 15	15	2 21	34		
TRIESTE	4.57	348.1	1 7	-2	2 5	4		2 34 SG
ZAGREB	4.68	7.6	1 9	-1	2 12	8		1 30 PG
SKOPJE	4.83	78.5	1 13	1	2 21	13		1 26 P*
PADOVA	4.84	332.0	1 13	1	2 6	-2		
CHIAVARI	5.28	308.3	1 18	-1				2 58 SG
BELGRADE	5.35	45.4	1 19K	-1	2 33	12		1 40 PG
PAVIA	5.89	314.7	1 42	15				4 23
MONACO	6.21	296.7	1 28	-4				2 12
SZEGED	6.24	34.1			1 59	-44		2 39 SG
SOFIA	6.33	73.4	1 43	10				3 10
TIMISOARA	6.38	42.3	1 39	5	3 43	56		
ISOLA	6.64	299.5	1 38	0				
BUDAPEST	6.90	22.8	1 44	3	3 0	1		3 48 SG
CHUR	6.94	326.6	1 40	-2	2 59	-2		
HURBANOVO	7.04	17.3						2 22 PG
VIENNA-H.	7.13	6.9	1 43	-1				3 53 SG
BRATISLAVA	7.13	10.9	1 40	-5	2 51	-14		2 20 PG
ATHENS	7.39	112.9	1 47A	-1	3 3	-9		
RAVENSBURG	7.67	331.2	1 58	6				
EBINGEN	8.24	330.1	1 59	-1				3 51
TUBINGEN	8.50	331.8	1 49	-15				3 31
STUTTGART	8.63	333.5	2 7	2				3 33
PRUHONICE	8.81	357.7	2 4	-4				3 26
PRAGUE	8.90	357.2	2 18	9				
BESANCON	8.92	315.9	2 8	-1	3 39	-11		2 37
UZHGOROD	9.03	32.0	2 10	-1				
STRASBOURG	9.04	327.4	2 9	-2	3 52	-1		
CHEB	9.10	348.9	2 8	-4				3 41
RACIBORZ	9.16	12.7	2 0	-13				4 40 S*
HEIDELBERG	9.36	333.5	2 11	-5				2 53
JENA	10.05	347.2	2 24	-1	4 27	9		5 42 SG
FELDBERG	10.16	335.1	1 58	-28				
COLLMBERG	10.22	352.6	2 25	-2				5 42 SG
HALLE	10.55	349.2	2 45	13				
GARCHY	10.56	309.3	2 41	9				
BAGNERES	11.26	284.6	2 59	17				
DOURRES	11.54	324.1	2 44	-1	4 50	-4		
PARIS	11.73	314.8						4 1
WARSAW	11.77	18.1	2 50	2				2 55 PP
SIMFEROPOL	14.41	68.5	3 24	1				
TOLEDO	14.62	271.2	3 24	-2				
KARLSKRONA	14.99	1.1	3 33	2				
GRANADA	15.04	260.7	3 33K	1				4 11
MALAGA	15.80	260.0	3 46K	5				
BENI ABBES	17.82	237.2	4 6	-1				
JERUSALEM	18.67	113.7	4 16	-1	7 34	-7		
UPPSALA	18.76	4.0	4 16	-2				
HELSINKI	19.97	14.5	4 33	1				
NURMIJARVI	20.23	13.8	4 33	-2				
MOSCOW	20.73	37.8	4 38	-2				
PULKOVO	20.88	21.9	4 38	-3				
TIFLIS	22.23	78.7	4 57	2				
SKALSTUGAN	22.50	356.7	4 58	0				
UMEA	22.88	5.9	5 2	1				
KIROVOBAD	23.55	80.9	5 9	1				
KAJAANI	24.09	13.6	5 14	1				
KIRUNA	26.86	4.5	5 38	-1				
SODANKYLA	27.00	9.8	5 40	-1				
TROMSOE	28.58	2.8	5 54	-1				
TEHERAN	28.79	88.9	5 58	1				

SHIRAZ	32.37	98.8	6 29	1						7 28	PP	
VANNOVSKAYA	33.06	81.2	6 36	2								
BANGUI	36.78	174.1	7 4	-2			7 14					
QUETTA	42.96	87.8	7 57	0								
WARSAK DAM	44.63	80.2	8 11	0								
LWIRO	44.99	160.4	8 13A	-1								
LAHORE	47.84	81.7	8 36	0								
NEW DELHI	51.48	83.4	9 5A	1								
BROKEN HILL	56.72	164.4	9 42	0								
CHATRA	59.87	79.4								11	31	
BULAWAYO	62.29	165.6	10 19	-2								
SHILLONG	64.06	77.9								11	8	
COLLEGE	73.44	352.5	11 31	1								
Y.-SAKHLINSK	80.61	33.3	12 11	0								
BOZEMAN	81.05	325.0	12 14	1								
BUTTE	81.43	326.1	12 16	1								
PENTICTON	81.46	332.0	12 11	-4								
WICHITA MTS.	82.98	310.5	12 22	-1						15	43	PP
GOLDEN	82.99	317.9	12 24	1								
FLAMING GRGE	84.01	321.1	12 28	0								
DUGWAY	86.18	322.7	12 39K	0								
EUREKA	88.19	324.3	12 49	1								
MAWSON	114.30	161.9	14 24A	-252								

AUGUST 21 21.H 6.M 0.S EPICENTRE -27.97-176.82 DEPTH= 24.KM

A=-0.88316 B=-0.04912 C=-0.46650 D=-0.0555 E= 0.9985
G= 0.4658 H= 0.0259 K=-0.8845 HT= 2.5

SE= 5.21

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
RAOUL ISLAND	1.60	216.9	0	21	-6								
ONERAHI	10.80	221.7	2	31	-5						5	48	
KARAPIRO	11.82	210.9	2	33	-17	4	32	-31					
CHATEAU	12.88	207.6	2	54	-10	5	2	-26			3	39	
APIA	14.86	19.4	3	28	-2								
WELLINGTON	14.97	205.3				5	46	-32			6	13	
COBB RIVER	15.65	210.6				6	6	-28			6	35	
NOUMEA	16.16	286.7	3	52K	5						7	57	
PORT VILA	17.06	303.5	4	3K	4								
KAIMATA	17.38	210.3				7	0	-14					
GEBBIES PASS	17.85	205.6	3	54	-14	6	50	-34					
KOUMAC	18.73	289.0	4	20K	1	8	20	36					
ROXBURGH	20.66	208.5	4	29	-12								
BRISBANE	26.90	264.0	5	36	-5						11	42	
RIVERVIEW	28.03	250.0	5	50A	-2								
HONIARA	28.61	305.6	5	53	-4						12	58	
CANBERRA	29.90	247.2	6	2	-6						11	38	
TOOLANGI	32.93	243.4	6	28	-7				6	40	16	47	SCS
CHARTERS TS.	34.52	274.9	6	46	-3	12	27	12					
ADELAIDE	38.32	248.1	7	15	-6	13	9	-4			15	58	SS
PORT MORESBY	38.60	291.5	7	23K	0	13	20	2					
CAPE HALLETT	44.95	185.6	8	7	-8								
DUMONT	46.78	202.0	8	19	-10						8	49	
SCOTT BASE	50.53	184.5	8	50	-9								
KIPAPA	52.35	22.3	9	17	5								
MUNDARING	57.33	248.3									10	37	
PERTH	57.64	248.2	10	8	17	18	5	19			12	19	PP
WILKES	57.78	207.1	9	40	-12	17	37	-11			10	13	
SOUTH POLE	62.19	180.0	10	12	-10								
MIRNY	64.76	206.3	10	29	-10						11	1	PCP
MAWSON	74.94	200.0	11	32K	-9				11	47	11	53	PCP
BAGUIO CITY	74.96	298.1	11	36	-5								
MATUSIRO	76.86	324.2	11	49	-3	21	45	8					
PRIEST	82.83	42.7	12	23	-1								
LICK	83.06	41.2	12	26	1								
BERKELEY	83.06	40.5	12	24A	-1	22	50	8			23	56	PS
Y.-SAKHLINSK	83.09	333.4	12	24	-1						22	50	SCS
HONG KONG	83.26	299.5	12	24	-2	22	47	3					
ZO-SE	83.32	310.3	12	24	-2	22	57	13					
CALISTOGA	83.41	39.8	12	28A	1								
PETROPAVLOVK	83.43	345.4	12	30	3						22	56	SKKS
CANTON	84.33	299.7	12	29	-2	23	5	11					
CHINA LAKE	84.48	44.5	12	30	-2								

MINERAL	85.14	39.0	12	36A	1					
NANKING	85.52	309.8	12	36	-1	23	14	8		
RENO	85.60	40.6	12	38A	0					
GUADALAJARA	85.90	64.2							28	40 SS
TUCSON	86.72	50.8	12	44	1				22	31
TUCSON TELE.	86.84	50.8	12	42	-2					
EUREKA	87.82	42.6	12	49	0					
CHIHUAHUA	88.04	56.1							29	30 SS
TACUBAYA	88.57	67.3	12	53	1				29	30 SS
CHANGCHUN	88.94	322.2	12	49	-5	23	50	12		
GLEN CANYON	89.00	46.7	12	52	-2					
OAXACA	89.39	70.5							29	40 SS
DUGWAY	90.17	43.5	13	7K	7					
VERA CRUZ	90.99	68.9	13	3	-1	24	20	23	28	20
PEKING	91.93	315.0	13	5	-3	24	15	10	23	39 SKS
FLAMING GRGE	92.70	44.5	13	12	1					
SIAN	93.59	307.0	13	13	-2					
KUNMING	93.66	296.4				24	33	13	23	52 SKS
RUTTE	93.83	39.0	13	14	-3					
BOZEMAN	94.47	39.9	13	19	-1					
COLLEGE	95.25	12.0	13	20	-3				17	24 PP
CHENGTU	95.37	301.8	13	21	-3					
WICHITA MTS.	96.65	54.3	13	26	-3				30	21 PKKP
DALLAS	97.07	56.7	13	37	6					
MERIDA	97.20	70.2							14	9 PCP
YAKUTSK	99.38	337.4							17	51 PP
TIKSI	106.19	344.4				24	48	2	18	31 PP
HERMANUS	116.12	194.7							36	30 SKKS
QUETTA	124.88	288.8	18	56	-2					
SVERDLOVSK	130.64	322.4	19	6	-3				22	28 SKP
ASHKABAD	133.24	297.0	19	5	-9				22	48 PKS
SHIRAZ	137.00	284.5	19	17	-4				23	5
TEHERAN	138.66	293.3	19	33	9				23	56 PPP
KIRUNA	138.78	350.2	19	27	3				22	21 PP
KAJAANI	140.60	343.3	19	26	-2					
LWIRO	141.15	223.5	19	29	0				66	10
UMEA	142.49	347.7	19	28	-3					
GORIS	142.64	299.3	19	27	-4				22	52 SKP
MOSCOW	142.87	328.0	19	25	-7				25	35 PPP
PULKOVO	143.19	337.3	19	24	-8	26	34	-4		
TIFLIS	143.55	303.2	19	26	-5				25	50 PPP
SKALSTUGAN	143.89	353.1	19	28K	-5					
NURMIJARVI	144.36	341.9	19	29	-5					
HELSINKI	144.55	341.3	19	30	-5					
UPPSALA	146.62	346.8	19	35	-3					
GOTEBORG	149.64	350.6	20	6	23					
SIMFEROPOL	150.14	312.9	19	45	1					
KARLSKRONA	150.45	345.9	19	52	8					
ABERDEEN	150.57	5.9							35	5 PPS
KSARA	151.42	289.9	19	44	-2	27	0	11	23	54 PP
COPENHAGEN	151.51	349.0	19	45	-1					
JERUSALEM	152.02	285.7	19	52	5					
BANGUI	152.32	214.8	19	49	2			20 1		
WARSAW	152.34	336.1	20	6	19				23	46 PP
LWOW	152.98	329.5	19	46	-2				27	3 PPP
DURHAM	153.00	6.1	20	6	18			21 1	23	54 PP
COLLMBERG	155.55	345.0	19	58	7				23	7 PP
HALLE	155.58	346.7	20	18	27				23	5 SKP
DE BILT	155.85	357.0	20	30	38					
JENA	156.20	346.8	20	21	29				23	4 PP
PRAGUE	156.31	341.8	20	20	28				25	46
PRUHONICE	156.36	341.5	20	21	29				23	10 PKS
KEW	156.38	5.5	20	20	28				41	38 SS
BUDAPEST	156.92	331.8	20	49	56					
BRATISLAVA	157.12	335.5	20	29	36				27	42 PPP
KASPERSKE H.	157.40	342.0	20	23	29				23	6 PKS
SOFIA	158.03	317.3	20	24	29				21	10 PKP2
BELGRADE	158.26	325.2							23	20
STUTTGART	158.70	348.8	20	20	25				20	35 PKP2
STRASBOURG	159.11	351.4	20	22	26				25	38 PP
PARIS	159.18	1.3	20	17	21					
ZAGREB	159.50	333.8							23	19
LJUBLJANA	159.85	336.6	20	30	33				24	29 PP
TRIESTE	160.46	337.4	21	7	70				24	32 PP
BESANCON	160.63	354.2	21	6	68				21	54
GARCHY	160.72	0.2	20	37	39				24	57
PADOVA	161.27	340.7				27	0	1	25	0 PP
PAVIA	162.17	346.1							25	26

AQUILA	163.42	332.6								25	45	
ROME	164.16	333.8								31	28	SKKS
BAGNERES	164.73	8.5								21	49	
MESSINA	165.47	317.7				26	57	-5		45	11	SS
TOLEDO	166.69	24.9	20	2	-1					24	16	PP
MALAGA	169.17	34.4	20	2A	-3					23	38	PKS

AUGUST 21 21.H 10.M 3.5 EPICENTRE -29.53-111.76 DEPTH= 150.KM

A=-0.32316 B=-0.80942 C=-0.49031 D=-0.9287 E= 0.3708
G= 0.1818 H= 0.4554 K=-0.8715 HT= 2.0

DEPTH OF FOCUS= 0.018R

SE= 2.37

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
CONCEPCION	33.84	113.0				11	52	9			14	3	
SANTA LUCIA	35.13	107.1	6	38A	-3	12	23	21			7	59	PP
ANTOFAGASTA	37.27	91.0	7	1	2						19	33	
HUANCAYO	38.03	70.6	6	57	-9								
AREQUIPA	39.09	79.6	7	15	1								
LA PAZ	41.97	81.9	7	38	0	14	9	24					
CHINCHINA	48.78	51.4	8	33	1	15	44	22			19	31	SSS
BALBOA HTS.	49.25	44.0	8	38	2	15	50	21					
BOGOTA	49.59	53.2	8	42A	4	15	58	25					
FUQUENE	50.43	52.7	8	48	3								
BYRD STATION	50.70	181.7									16	21	
GALERAZAMBA	53.32	46.8				16	47	23					
CAPE HALLETT	58.52	200.5	9	44	1								
CARACAS	58.73	54.2	9	43A	-2	17	51	15					
CHATEAU	59.33	239.6	9	51	2								
WELLINGTON	59.39	237.1	9	56	7								
KARAPIRO	59.66	241.0	9	47	-4								
HOUSTON	60.95	16.3	10	4	4								
TRINIDAD	62.84	58.3	10	12	0						18	41	
LUBBOCK	63.46	9.2	10	15	-1								
HAWAII V.OB.	64.25	313.8	10	25	3	19	2	17					
WICHITA MTS.	65.10	11.9	10	25	-2	19	7	11			12	53	PP
FORT FRANCE	65.72	55.1	10	32	1	19	23	20					
MACQUARIE I.	66.13	219.6	10	36A	2								
ST. CLAUDE	66.21	53.7	10	12	-22	19	29	20					
TULSA	66.80	14.1	10	37	-1	19	33	17			39	12	PKPPKP
HONOLULU	67.41	313.1				19	45	22			24	7	SS
EUREKA	68.77	356.5	10	50	0								
PRICE	68.79	0.8	10	50	0								
GOLDEN	69.13	5.3	10	52	0	20	1	17					
DUGWAY	69.38	359.1	10	54K	0								
COLUMBIA	69.55	26.9	10	55	0								
ROLLA	69.60	16.7	10	11K	-44								
C. GIRARDEAU	69.69	18.8	10	56	0								
MANHATTEN	69.82	12.5	10	56	-1								
LAWRENCE	69.86	13.7	10	57	0								
SALT LAKE C.	69.94	359.9	10	56	-1								
DUMONT	70.05	203.7	10	57	-1								
LARAMIE	70.71	4.9	11	2	0								
ST. LOUIS 1	70.73	17.7	11	1	-1								
FLORISSANT	70.84	17.6	11	2	-1								
CHAPEL HILL	72.01	27.5	11	9	-1								
BLOOMINGTON	72.30	20.4	11	9	-2								
DUBUQUE	74.26	16.0	11	23K	0								
BOZEMAN	74.84	0.5	11	26	0								
MORGANTOWN	74.90	24.9	11	27K	1								
BUTTE	75.19	359.4	11	27	-1	21	13	20					
WASHINGTON	75.37	27.3	11	30	1								
PENNSYLVANIA	76.70	25.8	11	37	1								
SEATTLE	77.40	352.7	11	42	2								
LONDON ONT.	77.49	22.5	11	41	0								
HUNGRY HORSE	77.55	358.5	11	42	1	21	38	20					
MOORLANDS	78.11	227.9	11	42	-2								
FORDHAM	78.33	28.4	11	48	3	21	44	17					
PALISADES	78.45	28.3	11	47	1	21	46	18			22	20	SCS
TARRALEAH	78.65	227.8	11	50	3								
WILKES	79.14	196.1	11	50	0						20	50	
CANBERRA	80.34	235.0	11	52	-4								
TOOLANGI	81.67	231.6	12	2	-1						20	19	

BREBEUF	82.33	26.0	12	7K	0	22	31	23			15	31	PP
MIRNY	82.38	189.7	12	8	1								
CHARTERS TS.	90.15	246.8	12	44	-1						16	19	
SCHEFFERVLLE	92.47	24.2	12	57	2								
PONTA DELGDA	104.57	54.8									33	15	SS
MOULD BAY	105.61	358.1	18	12	777								
ALERT	114.28	6.3									19	27	PP
SCORESBY SD.	117.44	22.3									19	44	PP
BULAWAYO	117.58	137.5	14	53	-215								
NORD	119.76	9.7									19	43	PP
MALAGA	120.06	62.4									20	4	PP
GRANADA	120.80	62.1									19	51	
BROKEN HILL	121.83	133.2	15	5	-212								
ABERDEEN	124.82	38.7									21	2	
DE BILT	129.01	45.1	19	27	36								
STRASBOURG	130.68	49.6	19	15	22								
STUTTGART	131.68	49.4	18	59	3								
KIRUNA	132.52	22.4	19	1	4						21	29	PP
JENA	133.07	46.3									22	39	
UMEA	134.28	27.4									22	45	PKS
KARLSKRONA	134.61	38.7	19	7	6								
UPPSALA	134.63	33.2									21	38	PP
SODANKYLA	134.77	21.2	19	7	6						21	38	PP
TRIESTE	134.80	53.6									19	46	
KAJAANI	137.02	24.8	19	10	5						23	4	PKS
NURMIJARVI	137.60	30.4	19	5	-2						21	58	PP
HELSINKI	137.90	30.7	19	12	5								
BUDAPEST	138.28	50.5									21	34	
KRAKOW	138.46	46.5									20	36	PP
WARSAW	138.65	43.1									19	26	
PEKING	139.68	298.2	19	16	6								
MEDAN	141.29	234.0	19	15	1								
ATHENS	142.33	65.1	19	15	0								
PAOTOW	144.35	299.4	19	21	2								
SIAN	145.30	288.5	19	20	0								
KUNMING	149.10	270.2	19	32	5								
CHENGTU	149.10	281.2	19	36	9								
LANCHOW	149.50	291.7	19	34	7								
MADRAS	160.17	216.5									22	35	
SHIRAZ	166.32	85.6									20	42	
POONA	167.91	206.3	19	37	-11								
BOMBAY	168.63	202.6	20	8	19						27	34	
DEHRA DUN	171.45	277.7	19	54	4								
NEW DELHI	172.10	265.3	19	57	6								
LAHORE	174.37	292.5	19	51	-1								
WARSAK DAM	174.72	328.5	19	57	5								
QUETTA	178.71	59.4	19	57	5								

AUGUST 22 4.H 32.M 25.S EPICENTRE 26.0S 142.62 DEPTH= 0.KM

A=-0.71483 B= 0.54619 C= 0.43669 D= 0.6071 E= 0.7946
G=-0.3470 H= 0.2651 K=-0.8996 HT= 3.0

SE= 2.29

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
MATUSIRO	11.12	341.3	2	43A	0	4	40	-9				
GUAM	12.68	170.5	2	41	-23						3	4
VLADIVOSTOK	19.15	335.5	4	31	4	8	15	17				
ZO-SE	19.48	289.9	4	32K	1							
Y.-SAKHLINSK	20.93	0.2	4	46	-1	8	40	4				
NANKING	21.66	291.6	4	54	0							
MANILA	23.11	244.9	5	11	3	9	11	-5				
HONG KONG	26.20	267.9	6	6	28							
SIAN	30.16	293.8	6	13	-1							
CHENGTU	34.17	286.8	6	48	-1	12	15	0				
LANCHOW	34.50	296.3	6	52	0	12	19	-1				
KUNMING	35.88	277.4	7	5	2	12	43	1				
YAKUTSK	37.00	349.9	7	12K	-1							
LHASA	45.45	286.8	8	25	3							
SHILLONG	45.45	281.1	8	22K	0							
CHARTERS TS.	45.99	175.2	8	26	-1							
CHITTAGONG	46.25	276.7	8	24	-5							
LEMBANG	47.14	231.0	8	36K	0							
SEMIPALATNSK	52.95	314.7	9	18	-2							

ALMATA-2	55.01	305.9	9	36K	1						
FRUNSE	57.06	305.6	9	51K	1	17	45	1			
NEW DELHI	57.52	288.5	9	53A	0						
COLLEGE	58.06	28.1	9	54	-3						
ANDIJAN	59.01	303.5	9	56	-8						
ADELAIDE	60.79	183.7	10	15	-1						
WARSAK DAM	60.95	296.0	10	17	0						
TASHKENT	61.21	304.6	10	18	-1						
CANBERRA	61.33	174.1	10	24K	4						
DUZHANBE	62.14	301.6	10	24A	-1						
SVERDLOVSK	64.30	322.8	10	38K	-1						
QUETTA	65.72	293.0	10	48K	0						
ASHKABAD	70.22	303.3	11	16	-1						
VANNOVSKAYA	70.40	303.4	11	18	0						
KARAPIRO	70.74	152.9	11	18	-2						
ALERT	71.01	3.4	11	22	1						
APATITY	73.16	337.7	11	34K	0						
KEVO	74.09	341.0	11	40	0						
PENTICTON	75.48	42.0	11	48K	0						
SODANKYLA	75.52	338.9	11	48	0						
TEHERAN	76.22	303.1	11	51	-1						
TROMSOE	76.45	342.6	11	50	-3						
KAJAANI	76.95	335.8	11	57	1						
KIRUNA	77.17	340.8	11	59	2	21	45	-1			
SHIPAZ	77.67	297.0	11	59A	-1	21	49	-2	12	8	14 55 PP
KIROVOBAD	77.97	309.4	12	2	1	21	56	1			
GORIS	78.44	308.3	12	5K	1	22	2	2			
TIFLIS	78.58	310.8	12	7	2						
HUNGRY HORSE	79.24	41.4	12	8	0						
UMEA	79.77	337.6	12	11	0				12	29	
NURMIJARVI	80.16	333.7	12	13	0	22	15	-3			
HELSINKI	80.24	333.3	12	13	-1						
BUTTE	81.20	43.0	12	19	0						
EUREKA	82.00	52.0	12	22	-1						
CHINA LAKE	82.52	53.9	12	26	0						
SKALSTUGAN	82.53	339.9	12	26	0						
UPPSALA	83.31	335.4	12	28	-2	22	45	-5	12	47	
DUGNAY	83.84	48.2	12	33A	1						
SIMFEROPOL	83.98	317.4	12	33	0	22	59	2			
LWOW	86.91	325.3	12	59	11						
GOLDEN	88.99	45.7	12	59	1						
ALBUQUERQUE	90.85	50.1	13	9	3						
PRUHONICE	91.41	329.4	13	11	2						16 46
JENA	92.04	331.5	13	12	0						
KASPERSKE H.	92.46	329.3	13	13	-1						
STUTTGART	94.65	331.1	13	24	0						
WICHITA MTS.	96.28	46.6	13	32	1	24	16	8			17 31 PP
MIRNY	99.61	198.0									28 32
PALISADES	105.17	27.8				24	54	3			

AUGUST 23 15.H 29.M 47.5 EPICENTRE 23.02 120.71 DEPTH= 0.KM

A=-0.47048 B= 0.79210 C= 0.38889 D= 0.8598 E= 0.5107
G=-0.1986 H= 0.3344 K=-0.9213 HT= 3.9

SE= 3.31

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S
TAINAN	0.45	267.1	0	10K	-3	0	22	0				
TAITUNG	0.49	123.8	0	9K	-5	0	19	-4				
ALISHAN	0.50	9.6	0	12	-2	0	22	-1				
YUSHAN	0.51	26.0	0	14	0	0	25	2				
KAOHSIUNG	0.57	225.3	0	36	21	0	45	20				
HSINKONG	0.61	82.8	0	16	1	0	26	0				
TAWU	0.69	165.2	0	15A	-2	0	24	-4				
HENGCHUN	1.02	177.9	0	21A	0	0	35	-1				
TAICHUNG	1.12	358.6	0	23	0	0	40	1				
PENGHU	1.18	295.5	0	19	-4	0	45	5				
HWALIEN	1.26	41.4	0	25	0	0	45	3				
HSINCHU	1.78	7.6	0	36	-4	1	1	5				
TAIPEI	2.13	20.2	0	42	5	1	13	8				
HONG KONG	6.08	264.5	1	29K	-4	2	43	-1				
CANTON	6.79	272.0	1	38	-5							
ZO-SE	8.06	2.9	2	0	-1							
MANILA	8.32	177.5	2	5	1	3	58	18				

NANKING	9.16	349.7	2	16	0	4	11	10			
NHATRANG	15.34	227.5	3	37	-2						
KUNMING	16.54	280.9	3	52	-3	7	3	4			
CHENGTU	16.72	300.6	3	58	1	7	11	8			
PEKING	17.39	348.3	4	7	2	7	29	11			
ABUYAMA	17.54	44.4	4	9K	2						
LANCHOW	19.56	315.4	4	30	-2	8	13	6			
PAOTOW	19.69	335.2	4	37	4						
MATUSIRO	20.26	44.4	4	37K	-2	8	18	-4			
CHANGCHUN	21.10	9.3	4	52	4	8	48	9			
VLADIVOSTOK	22.09	22.2	4	54	-4	8	46	-12			
GUAM	24.69	108.5	5	20	-4						5 55 PP
SHILLONG	26.39	281.4	5	36	-4						
ULAN-BATOR	27.18	339.4	5	51	4						
LHASA	27.35	290.3	6	1	13						
Y.-SAKHLINSK	29.77	31.1	6	9	-1						
ESEN BULAK	30.56	325.7	6	50	33						
CHATRA	30.60	284.1	6	21	3						
LEMBANG	32.31	204.9	6	41A	8						
DARWIN	36.55	163.2	7	4	-5						
DEHRA DUN	38.63	290.2	7	27	1						
NEW DELHI	39.40	287.5	7	30A	-3						
YAKUTSK	39.46	6.7	7	31A	-2	13	23	-13			
ALMATA-2	40.97	310.1	7	45	-1						
PORT MORESBY	41.33	138.3	7	44A	-5						
PETROPAVLOVK	41.51	34.1	7	47	-3						
LAHORE	41.83	292.1	7	57	4						
FRUNSE	42.82	308.8	8	7	6						
WARSAK DAM	44.19	295.6	8	12	0						
TASHKENT	46.49	305.7	8	36	6						
QUETTA	48.23	290.5	8	42	-2						
CHARTERS TS.	49.58	147.8	8	51A	-4						
SVERDLOVSK	54.73	324.3	9	30	-3						
ASHKABAD	54.83	301.0	9	41	7						
BRISBANE	58.92	146.5	10	0K	-3						12 21
ADELAIDE	60.15	163.0	10	7K	-5						
KOUMAC	60.68	132.2	10	12A	-3						
SHIRAZ	60.70	292.1	10	19A	4						13 7 PP
KIROVOBAD	63.83	305.3	10	34	-2						
CANBERRA	63.92	154.4	10	33A	-4						13 6 PP
TOOLANGI	64.63	158.4	10	37	-4						13 34
APATITY	67.92	335.5	11	2K	0						
TARRALEAH	69.22	159.8	11	7	-3						
MOORLANDS	69.58	159.4	11	11	-2						
KEVO	69.89	338.3	11	12	-2						
COLLEGE	70.03	27.0	11	12	-3						
SODANKYLA	70.54	335.8	11	16K	-2						
SIMFEROPOL	71.78	311.7	11	31	5						
TROMSOE	72.64	339.0	11	30	-1						
HELSINKI	73.10	328.7	11	32	-2						
NURMIJARVI	73.15	329.1	11	35	1	20	43	-19			
UMEA	74.08	333.0	11	36	-3						
UPPSALA	76.68	329.6	11	51K	-3						
SKALSTUGAN	77.44	334.2	11	57	-1						
CHATEAU	80.36	139.9	12	11	-3						
ROXBURGH	81.25	147.7	12	15	-4				12	26	
PRUHONICE	82.45	321.3	12	31	6						13 21
HALLE	83.20	323.4	12	33	4						
KASPERSKE H.	83.40	320.8	12	29	-1						13 44
JENA	83.68	323.0	12	36	4						12 59
ALBERNI	87.49	36.6	12	48	-3						
VICTORIA	88.67	36.8	12	54	-2						
PENTICTON	90.25	34.7	13	1	-3						
LONGMIRE	90.57	37.6	13	3	-2						20 20
DUMONT	90.60	172.4	12	30	-35						15 43 PP
HUNGRY HORSE	93.73	33.1	13	20	0						
EUREKA	98.36	40.8	13	39	-2						
WOODY	98.85	45.3	13	39	-4						
MAWSON	99.86	199.2									18 29 PP
WICHITA MTS.	111.52	34.1	18	38	2						19 19 PP
BYRD STATION	117.56	170.2									19 53
CARACAS	145.85	13.5	19	40	0						
TRINIDAD	146.47	3.8	19	42	1						

AUGUST 23 19.H 29.M 17.S EPICENTRE 41.90-123.71 DEPTH= 30.KM

A=-0.41437 B=-0.62100 C= 0.66532 D=-0.8318 E= 0.5550
G=-0.3693 H=-0.5534 K=-0.7466 HT= -2.4

SE= 2.82

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SHASTA	1.56	139.8	0 29K	3				
MINERAL	2.22	133.4	0 38K	2				
CALISTOGA	3.37	164.7	0 50K	-2				
RENO	3.79	127.2	1 1K	3				
PT. REYES	3.87	170.1	0 57K	-2				
CONCORD	4.12	161.6	1 2K	-1				
BERKELEY	4.18	164.0	1 2K	-2	1 53	1		
SAN FRANCSCO	4.24	166.3	1 2K	-3				
BRANNER	4.63	164.7	1 9K	-1				
LICK	4.83	160.0	1 11K	-2				
LONGMIRE	5.04	15.1	1 15	-1				2 6
STA. CRUZ C.	5.07	164.3	1 14K	-2				
VINEYARD TE.	5.45	159.9	1 21K	-1				
PARAISO	5.66	168.9	1 25K	0				
LLANADA	5.69	156.9	1 24K	-1				
SEATTLE	5.84	9.4	1 28	1				
FRESNO	5.95	148.1	1 31K	2				
PRIEST	6.22	156.6	1 32K	-1				
EUREKA	6.36	109.8	1 38	3				
VICTORIA	6.62	1.7	1 35	-3				
WOODY	7.26	147.0	1 47	0				
SPOKANE	7.39	35.7	1 51	2	3 42	29		
ALBERNI	7.41	354.4	1 46	-3				
PENTICTON	7.96	19.7	1 56K	-1				
DUGWAY	8.41	98.0	2 6A	3	3 52	14		
PASADENA	8.88	148.7	2 10	0	3 49	-1		
SALT LAKE C.	9.00	93.3	2 15	4				
BUTTE	9.03	59.1	2 14	2	4 1	7		
BOULDER CITY	9.10	127.6	2 15	2				
HUNGRY HORSE	9.40	43.4	2 18	1	4 8	5		
BOZEMAN	9.90	63.4	2 25	1	4 10	-5		
PRICE	10.06	98.9	2 27A	1				
GLEN CANYON	10.59	113.7	2 37	4				
FLAMING GRGE	10.80	90.4	2 39	3				
BANFF	10.84	28.4	2 37	0				
LARAMIE	13.58	86.4	3 9	-4				
TUCSON TELE.	14.07	128.5	3 22	2				
TUCSON	14.08	129.0	3 22	2	6 49	53		
RAPID CITY	15.17	74.8	3 33	-1				
ALBUQUERQUE	15.19	111.5	3 36	2	5 55	-27		
LUBBOCK	19.15	108.6	4 23	-1				
MANHATTEN	20.76	88.4	4 39A	-2	8 41	14		
WICHITA MTS.	20.93	101.8	4 41A	-2	8 38	8		
LAWRENCE	21.82	88.2	4 49	-3				
TULSA	22.48	96.2	4 56	-3	9 4	5		
DALLAS	23.16	104.2	5 4	-1				
DUBUQUE	24.40	77.4	5 17	0	9 28	-4		
ROLLA	24.65	88.7	5 19	-1	9 41	4		
FLORISSANT	25.51	85.8	5 27	-1	9 54	3		
ST. LOUIS 1	25.66	86.1	5 27	-2	10 5	12		
COLLEGE	26.80	337.2	5 37	-3				
BLOOMINGTON	28.27	83.0	5 51A	-2	10 42	6		
LONDON ONT.	31.15	73.3	6 18K	-1				
PENNSYLVANIA	34.12	76.2	6 40	-5				
COLUMBIA	34.28	89.1	6 43	-3				
MOULD BAY	34.49	1.9	6 46	-2				
CHAPEL HILL	34.96	84.8	6 51	-1				
WASHINGTON	35.31	79.0	6 56	1	12 34	8		
RESOLUTE	35.38	12.8	6 53	-2				
HONOLULU	35.43	245.3	7 3	7	12 30	2		
BREBEUF	35.92	66.9	6 58	-2	12 34	-2		8 27 PP
PALISADES	36.91	74.2	7 6	-2	12 57	6	7 25	13 5 *SS
FORDHAM	36.99	74.5	7 4	-5	12 58	6		
SCHEFFERVLLE	38.89	50.6	7 24A	-1				
THULE	41.70	17.0						9 28
HALIFAX	43.00	65.2	7 58A	-1				
ALERT	45.03	9.4	8 14	-1	14 55	4		18 9 SCS
HOPE	46.43	106.3	8 26	0				
BERMUDA	47.19	81.5	8 30	-2	15 19	-3		
PETROPAVLOVK	51.19	310.8	8 59	-4				

GALERAZAMBA	52.39	111.9	9	15A	3	16	49	15			
MAGADAN	52.95	320.5	9	14	-2						
SAN JUAN	53.95	97.4	9	23	-1	17	3	7			
SCORESBY SD.	54.87	23.7	9	29	-1	17	13	5			
CHINCHINA	56.36	117.0	9	42	1	17	34	6	11	47	PP
ST. KITTS	57.12	96.0	9	47	1						
FUQUENE	57.26	115.0	9	48	1	17	43	3	11	57	PP
BOGOTA	57.65	116.0	9	51A	1	17	51	6	12	0	PP
ANTIGUA	57.90	95.5	9	51	-1						
CARACAS	58.49	105.2	9	56A	0	18	2	6			
SIDA	59.56	29.7							10	4	PP
YAKUTSK	60.90	328.8	10	8K	-5						
TRINIDAD	62.41	100.8	10	20	-3						
TROMSOE	65.45	13.5	10	41	-2						
KEVO	66.60	10.7	10	57	7						
KIRUNA	67.30	13.9	10	48	-6	19	48	2			
SODANKYLA	68.75	11.9	11	1A	-2						
SKALSTUGAN	69.22	19.4	11	6	0						
APATITY	69.51	9.2	11	14A	6	20	14	2			
HUANCAYO	69.69	128.8	10	50	-19						
UMEA	70.82	16.0	11	14A	-2	20	28	0			
VLADIVOSTOK	71.50	311.6	11	19	-1	20	27	-9			
MATUSIRO	71.94	303.0	11	19A	-4	20	39	-2			
KAJAANI	71.97	12.8	11	22	-1						
UPPSALA	73.74	19.2	11	32	-1	21	0	-1			
CHANGCHUN	74.59	315.5	11	38	0						
NURMIJARVI	74.71	15.6	11	37	-2						
HELSINKI	75.09	15.6	11	39	-2						
AREQUIPA	75.44	128.4	11	44	1						
COPENHAGEN	75.92	23.9	12	0	14	21	30	5			
PULKOVO	76.45	13.2	11	57K	8						
FOLINIERE	76.81	34.6	11	50	-1						
IRKUTSK	77.40	332.1	11	53	-1						
LA PAZ	77.47	125.8	12	4	9				21	50	
DOURBES	77.82	31.1	11	56	-1	21	52	6			
PARIS	78.01	33.0	12	58K	60						
HALLE	79.31	26.4	12	3	-2	22	8	6			
GARCHY	79.46	33.7	13	5	59				14	53	
JENA	79.67	26.9	12	5	-2	22	7	1	15	3	PP
COLLMBERG	79.82	25.9	12	7A	-1				15	4	PP
HEIDELBERG	79.94	29.3	12	7	-1						
ULAN-BATOR	80.00	328.1	12	9	1						
STRASBOURG	80.27	30.3	12	11	1	22	15	3	21	25	
BESANCON	80.67	32.1	12	15	3						
STUTTGART	80.67	29.4	12	12	0	22	22	6	12	42	
CLERMONT-FD.	80.68	34.6	12	16	4						
EBINGEN	81.05	29.9	12	14	0						
PRAGUE	81.35	25.8	12	15	-1						
WARSAW	81.39	21.0	12	25	9	22	26	2	23	9	PS
MOSCOW	81.46	10.5	12	13	-3						
PRUHONICE	81.46	25.8	12	15A	-1	22	27	3	23	15	PS
BAGNERES	81.50	38.0	12	15	-1						
SVERDLOVSK	81.57	357.6	12	14	-3						
KASPERSKE H.	81.88	26.7	12	18	0				15	25	
TOLEDO	81.92	42.5	12	18	-1	22	33	4			
PEKING	82.03	317.9	12	24	5						
PACIBORZ	82.51	23.6	12	23	1				12	32	PCP
KRAKOW	83.05	22.6	12	25	1	22	42	2	12	38	PCP
VIENNA-H.	83.56	25.6	12	27	0						
ISOLA	83.61	33.3	12	28	1						
BRATISLAVA	83.86	25.2	12	28	-1				12	35	PCP
MALAGA	84.12	44.8	12	31A	1						
MONACO	84.13	33.3	12	10	-20						
GRANADA	84.19	44.0	12	34A	4	22	57	5			
LWOW	84.38	20.3	12	30	-1						
TRIESTE	84.93	28.4	12	34	0				23	15	
BUDAPEST	85.08	24.3	12	36	1				23	6	
ESEN BULAK	85.17	333.5	12	34	-1						
NANKING	86.64	311.0	12	49	7						
AQUILA	87.65	30.3	12	53	6	23	33	8			
ROME	87.68	31.1	13	1	14	23	35	9	13	19	24 52 PS
SIAN	90.15	318.8	13	7	8						
LANCHOW	91.06	323.3	13	2	-1						
SIMFEROPOL	91.29	15.5	13	18	14						
MESSINA	92.06	31.0							24	5	
ALMATA	93.20	345.0	13	11K	-2						
PORT MORESBY	95.56	262.4							18	50	
KIROVOBAD	97.34	7.6	13	31	-1						
KSARA	102.35	17.3							27	19	PS

BYRD STATION	121.68	179.1	18	50	-2									
SOUTH POLE	131.71	180.0	19	9	-2									
LWIRO	133.45	39.4	19	33	19								21	44
BROKEN HILL	143.58	49.6	19	31	-1									
BULAWAYO	148.10	55.7	19	42	2									
MIRNY	148.13	206.9	19	40	0									

AUGUST 23 20.H 52.M 57.S EPICENTRE -56.28 -26.90 DEPTH= 76.KM

A= 0.49736 B=-0.25231 C=-0.83004 D=-0.4524 E=-0.8918
G=-0.7402 H= 0.3755 K=-0.5577 HT= -7.7

DEPTH OF FOCUS= 0.007R

SE= 0.76

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
SOUTH POLE	33.90	180.0	6	39	1								
BYRD STATION	35.62	197.4	6	53	0	12	22	-1			8	24	PP
MAWSON	39.87	143.3	7	29A	1	13	13	-14			10	33	PP
ANTOFAGASTA	45.38	297.5	8	12	-1						9	51	
KIMBERLEY	45.51	75.0	8	14K	0								
MIRNY	49.50	152.9	8	44	-1								
AREQUIPA	52.06	301.3	9	5	0								
WILKES	53.58	160.2	9	16	0								
BULAWAYO	54.49	72.1	9	22K	-1								
DUMONT	56.97	173.8	9	39	-1						10	33	
BROKEN HILL	59.15	68.2	9	55A	-1								
LWIRO	69.73	61.6	11	6	2								
BANGUI	70.93	48.8	11	11	0				11	18			
CARACAS	74.35	318.9	11	32A	0	20	53	-5					
MOORLANDS	81.52	175.6	12	11	0								
TOOLANGI	86.29	173.9	12	35	0						13	5	
MUNDARING	86.66	149.3	12	36	-1								
ADELAIDE	88.29	168.2	12	45K	0						12	47	PCP
CANBERRA	88.69	176.6	12	47A	0								
RIVERVIEW	90.23	178.4	12	54	0								
BRISBANE	96.66	179.7	13	26	3								
ATHENS	103.23	38.9									20	19	
SHIRAZ	108.63	64.6	18	25	777								
WICHITA MTS.	109.04	304.2	14	18	777						18	47	PP
ALBUQUERQUE	112.98	298.7	18	48	19						19	20	
GOLDEN	116.24	302.6	18	35	0								
QUETTA	116.59	75.0	18	37	1								
WOODY	119.85	290.3	18	43	1								
DUGWAY	120.21	297.9	18	43	0								
NEW DELHI	120.96	84.1	18	43K	-1								
UPPSALA	121.05	24.4	18	43	-1								
PRIEST	121.13	289.3	18	47K	2								
EUREKA	121.24	295.2	18	46	1						20	16	PP
LAHORE	121.66	79.7	18	46	0								
LICK	122.55	289.6	18	50K	3								
BERKELEY	123.27	289.5	18	50K	1								
NURMIJARVI	123.35	27.6	18	48	-1								
CALISTOGA	124.01	289.9	18	51K	1								
MINERAL	124.77	292.0	18	51	-1								
UMEA	125.14	23.4	18	51	-1								
HUNGRY HORSE	126.85	303.6	18	55	-1								
KAJAANI	127.13	26.7	18	56	0								
LONGMIRE	129.46	297.5	19	0	-1								
SODANKYLA	129.57	23.8	19	0	-1								
PENTICTON	130.16	301.2	19	2	0								
MOULD BAY	144.25	335.8	19	26	-2								
COLLEGE	150.80	311.3	19	35	-3								

AUGUST 24 6.H 47.M 19.S EPICENTRE -24.90 178.75 DEPTH= 673.KM

A=-0.90789 B= 0.01980 C=-0.41875 D= 0.0218 E= 0.9998
G= 0.4186 H=-0.0091 K=-0.9081 HT= 3.4

DEPTH OF FOCUS= 0.101R

SE= 3.15

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SUVA	6.73	357.4	1	56	5	3	1	-19					
ONERAHI	11.47	198.2	2	34	0	4	48	11					
NOUMEA	11.57	280.4	2	28	-7	4	37	-2					
PORT VILA	12.05	304.3	2	29K	-10	4	38	-9					
KARAPIRO	13.27	191.1	2	51	0						3	58	
TUAI	13.92	185.2	2	53	-4	5	18	-1			5	47	
KOUMAC	14.03	285.0	2	52K	-6	5	22	1					
APIA	14.20	40.7	2	46	-14	5	18	-6					
TARATA	14.72	193.5	3	1	-4	5	38	6					
WELLINGTON	16.67	190.5	3	23	0	6	11	6					
COBB RIVER	16.90	195.8	3	25	0	6	16	7					
KAIMATA	18.59	197.2	3	42	2	6	44	8					
GEBBIES PASS	19.41	193.4	3	49	1	6	55	5					
ROXBURGH	21.90	198.0	4	10	0								
BRISBANE	23.43	258.3	4	19	-5	7	52	-2					
HONIARA	23.60	307.4	4	18A	-7								
RIVERVIEW	25.58	243.3	4	56	14						8	34	
CANBERRA	27.66	241.0	5	0A	0	9	6	6			5	33	
CHARTERS TS.	30.35	272.5	5	21K	-2	9	43	2					
TOOLANGI	30.95	237.9	5	27	-1	9	55	5	7	3			
RABAUL	32.81	304.6	5	36	-7								
PORT MORESBY	33.78	291.6	5	47K	-5	10	31	-2			11	7	
ADELAIDE	35.91	244.2	6	9K	0	11	8	4			8	20	PCP
DUMONT	48.22	199.5	7	45	0						12	2	PP
GUAM	50.54	315.2	7	57	-5						9	59	PP
SCOTT BASE	53.32	183.1	8	24	2								
MUNDARING	54.79	247.4	8	32	0								
WILKES	58.73	206.0	8	59A	1								
BYRD STATION	60.83	169.9	9	15	3						12	5	
MIRNY	65.75	206.0	9	44	1								
MANILA	68.62	298.6									13	41	
LEMBANG	70.06	271.7	10	10	1								
TANGERANG	71.22	271.9									17	41	
MATUSIRO	72.09	326.6	10	18	-3				12	18			
MAWSON	76.41	200.8	10	47A	2				11	50	11	9	PCP
CANTON	79.36	301.6	11	0	0								
NANKING	80.52	311.8	11	6	0								
PRIEST	83.39	45.2	11	21A	0								
BERKELEY	83.44	43.1	11	20A	-1								
LICK	83.50	43.8	11	22A	1								
CALISTOGA	83.72	42.3	11	22K	0								
PASADENA	83.86	48.0	11	23	0								
CHANGCHUN	84.12	324.2	11	23	-1	20	51	-4	13	22	14	17	*SP
MINERAL	85.38	41.4	11	30K	0								
PEKING	86.97	317.0	11	38	0	21	10	-11	13	38			
TUCSON	87.97	53.0	11	43	1								
TUCSON TELE.	88.09	53.0	11	43	0								
EUREKA	88.35	44.7	11	44	0				13	46			
SIAN	88.58	308.9	11	46	1	21	21	-15	13	46			
KUNMING	88.73	298.4	11	47	1				19	47			
LONGMIRE	89.23	36.3	11	47	-1								
GLEN CANYON	89.88	48.7	11	42	-9								
CHENGTU	90.37	303.8	11	55K	2	21	31	-20	13	55			
DUGWAY	90.78	45.4	11	56K	1								
PAOTOW	91.16	314.8	11	57	0	21	33	-25	13	57			
PRICE	91.78	46.7	12	1K	1								
PENTICTON	91.97	35.2	12	1	0								
ALBUQUERQUE	92.47	52.5	12	4	1								
LANCHOW	93.09	308.4	12	6	0	21	46	-29	14	6			
COLLEGE	93.15	13.6	12	4	-2				14	10			
GOLDEN	95.48	48.7	12	17	0								
SHILLONG	97.77	294.5									16	33	
WICHITA MTS.	98.15	55.6	12	28	-1	23	13	70	14	35	16	34	PP
QUETTA	120.10	291.7	17	42A	5	23	50	17			20	26	PP
KIMBERLEY	121.07	206.7	17	43	4								
BULAWAYO	126.63	215.7	17	53K	3								
BROKEN HILL	131.31	219.7	17	57	-2						20	38	
SHIRAZ	132.32	288.2	18	4A	4				20	39	20	34	PP
TROMSOE	133.68	350.4	18	4	1								
TEHERAN	133.77	296.4									20	46	
SODANKYLA	134.17	345.4	18	4	0						20	42	SKP
KAJAANI	136.50	342.0	17	52	-16						20	51	SKP
UMEA	138.60	345.8	18	4	-8						20	56	SKP
NURMIJARVI	140.18	340.3	18	10	-5						20	33	PP
LWIRO	140.27	231.5	18	15	0								
SKALSTUGAN	140.31	350.6	18	12	-4						21	0	SKP

HELSINKI	140.35	339.7	18	13	-3				21	1	SKP
KARLSKRONA	146.44	342.9	18	34	8						
KSARA	146.59	294.1	18	33	7	20	51		21	57	PP
JERUSALEM	147.29	290.5	18	36	9	20	40				
RACIBORZ	150.68	334.0	18	42	10				18	54	PKP2
COLLMBERG	151.46	341.1	18	36A	3				18	42	PP
BANGUI	152.05	226.3	18	39	5				21	1	SPKP
PRUHONICE	152.12	337.9				20	58				
JENA	152.20	342.5	18	45	11	20	59		22	28	PP
BRATISLAVA	152.63	332.7	18	39	4	20	59				
KASPERSKE H.	153.17	338.1	18	39	3	21	1				
STUTTGART	154.78	343.5	18	41	3				21	5	PP
PARIS	155.96	353.9	19	13	34						
GARCHY	157.40	352.3	18	45	4				19	18	

AUGUST 24 9.H 4.M 21.S EPICENTRE -15.01-173.31 DEPTH= 0.KM

A=-0.95973 B=-0.11260 C=-0.25736 D=-0.1165 E= 0.9932
G= 0.2556 H= 0.0300 K=-0.9663 HT= 5.7

SE= 3.13

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
APIA	1.91	51.1	0	25K	-9								
SUVA	8.51	247.4	2	23	16	3	56	11					
PORT VILA	17.83	258.8	4	14K	3								
NOUMEA	20.49	246.3	4	43K	1								
KOUMAC	22.03	252.2	4	55	-3								
ONERAHI	23.44	205.9	5	15	3								
KARAPIRO	24.87	201.3	5	25	0								
TUAI	25.15	197.7	5	41	13								
TARATA	26.41	201.9	5	42	2								
HONIARA	26.70	278.9	5	42	-1	10	18	1					
BRISBANE	33.82	243.0	6	40	-6	11	22	-48					
RABAUL	35.63	284.0	6	55	-6	12	51	13			8	17	
RIVERVIEW	37.14	233.3	7	6	-8						13	16	
HAWAII V.OB.	38.55	28.0	7	27	1	13	37	14					
CHARTERS TS.	38.81	256.5	7	24	-4						9	3	
PORT MORESBY	39.01	273.6	7	28	-2	13	37	8			17	9	
HONOLULU	39.05	22.8	7	32	2	13	28	-2					
KIPAPA	39.19	22.9	7	34	3								
CANBERRA	39.34	232.1	7	28	-5								
TOOLANGI	42.78	230.4	7	58	-3						8	24	
MOORLANDS	43.53	223.1	8	10	3								
TARRALEAH	43.96	223.7	8	9	-1								
ADELAIDE	47.30	236.1	8	34	-3	15	31	0			18	57	
GUAM	50.23	302.2	8	57	-3						10	50	PP
CAPE HALLETT	58.11	185.9	9	58	1								
DUMONT	59.99	199.5	10	8	-3	18	21	-1					
SCOTT BASE	63.64	184.6	10	32	-3								
TUKUBASAN	67.32	320.5	10	58A	-1								
MATUSIRO	68.70	319.7	11	2	-5	20	7	-3					
BYRD STATION	69.33	171.3	11	7	-4						11	14	PCP
WILKES	70.81	204.5	11	15	-5	20	27	-8			25	10	SS
PRIEST	71.13	42.8	11	21K	-1								
BERKELEY	71.13	40.6	11	21K	-1	20	37	-2			12	24	PCP
LICK	71.20	41.3	11	21A	-2								
CALISTOGA	71.40	39.8	11	25A	1								
PASADENA	71.68	45.8	11	26	0	20	47	2	11	33			
PETROPAVLOVK	71.93	342.6	11	27	0								
BAGUIO CITY	72.35	292.9	11	25	-4	20	9	-44					
MINERAL	73.04	38.8	11	35	1								
Y.-SAKHLINSK	73.25	330.3	11	34	-1	21	3	0					
BOULDER CITY	74.97	45.7	11	41	-4								
SOUTH POLE	75.09	180.0	11	42	-3								
TUCSON	76.01	50.8	11	47	-4								
EUREKA	76.08	42.2	11	48	-3								
TUCSON TELE.	76.14	50.7	11	48	-3								
VLADIVOSTOK	76.55	322.0	11	53A	-1	21	39	0					
LONGMIRE	76.89	33.5	11	55	-1								
SEATTLE	77.20	32.6	11	53	-4								
GLEN CANYON	77.73	46.2	11	57	-3								
LEMBANG	77.74	266.1	12	1	1								
MIRNY	77.82	204.1	11	56	-5	21	50	-3					
DUGWAY	78.52	42.9	11	58K	-7	22	0	-1					
SALT LAKE C.	79.44	42.7	12	10	U								

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

PRICE	79.56	44.2	12	6K	-4							
PENTICTON	79.64	32.4	12	11	0							
MAGADAN	79.79	342.3	12	9	-2	22	13	-1				
NANKING	80.06	307.0	12	9	-4	22	20	3				
HONG KONG	80.11	296.3	12	10	-3	22	24	6			15	10 PP
ALBUQUERQUE	80.48	50.0	12	12	-3						12	42
CHANGCHUN	80.95	320.0	12	15	-3	22	32	6				
CANTON	81.11	296.8	12	18	0							
FLAMING GRGE	81.14	43.5	12	16	-3							
BUTTE	81.69	37.9	12	18	-3	22	38	4				
COLLEGE	81.97	10.7	12	18	-5	22	35	-2			30	11 PKKP
HUNGRY HORSE	82.09	35.4	12	24	0							
BOZEMAN	82.42	38.8	12	23	-2	22	46	5				
GOLDEN	83.32	46.0	12	26	-4	22	52	1				
LUBBOCK	83.40	52.8	12	30	0							
PEKING	85.27	313.4	12	39	-1	23	7	-3				
WICHITA MTS.	86.34	52.8	12	42	-3	23	13	-7			15	50 PP
RAPID CITY	86.64	42.8	12	47	0							
DALLAS	87.10	55.0	12	46	-3							
HOUSTON	87.18	58.4	12	50	1							
MANSON	88.19	198.6	12	50K	-4				13	0	12	53 PCP
SIAN	88.55	305.9	12	56	0	23	29	-12				
YAKUTSK	88.77	336.7	12	52K	-5							
TULSA	88.90	52.4	12	57	0	23	29	-15				
MANHATTEN	89.41	49.1	12	59	-1	23	31	-18				
PAOTOW	89.83	312.2	13	0	-2	23	58	5			23	36 SKKS
LAWRENCE	90.31	49.7	12	49	-15							
KUNMING	90.94	295.6	13	8	1	24	15	12			23	44 SKS
CHENGTU	91.40	301.2	13	9	0	24	17	10			23	42 SKS
SANTA LUCIA	92.07	125.3	13	14	2	24	25	12			30	37 SS
ROLLA	92.48	51.5	13	13	-1	23	46	-30				
LANCHOW	93.07	306.4	13	17	0	24	30	9			23	49 SKS
FLORISSANT	93.89	51.0	13	17	-3							
ST. LOUIS 1	93.95	51.2	13	20	-1							
DUBUQUE	94.68	47.4	13	24	0	23	59	-36				
BLOOMINGTON	96.90	51.4	13	39	5	24	18	7				
CHINCHINA	98.68	87.2				24	27	7			17	43 PP
BOGOTA	100.09	87.9				24	30	3			17	50 PP
FUQUENE	100.63	87.1									17	58 PP
PALISADES	106.72	51.2	18	13	777	24	59	1				
BREBEUF	107.30	46.6				25	3	2			34	11 SS
CARACAS	108.33	83.7	19	18	777						28	15 PS
DEHRA DUN	113.35	296.8									19	40
NEW DELHI	113.96	294.9									19	34
TASHKENT	120.29	309.3									20	13
SVERDLOVSK	121.85	328.5	18	56	0							
APATITY	124.69	347.9	18	59	-3						27	37 SKKS
SODANKYLA	126.08	350.6	19	7	3							
KIRUNA	126.47	353.6									38	1 SS
KAJAANI	128.87	348.3	19	9	-1							
ASHKABAD	129.16	306.9	19	15	5						28	22 SKKS
VANNOVSKAYA	129.35	307.0	19	9	-2							
UMEA	130.34	352.2	19	11	-2						22	37 PKS
PULKOVO	132.06	344.1	19	16	0						31	52 PS
NURMIJARVI	132.72	348.0	19	19	2						22	45 PKS
MOSCOW	132.93	336.6	19	15	-2							
UPPSALA	134.51	352.3									22	49 PKS
SHIRAZ	135.46	297.1	19	22A	0						21	57 PP
TIFLIS	137.72	316.6	19	29	3						23	4 PKS
BULAWAYO	138.96	212.3	19	22	-7							
COPENHAGEN	139.17	355.0									23	11
WARSAW	141.15	346.0									22	35 PP
SIMFEROPOL	142.21	327.7	19	30	-4						22	42 PP
LWOW	142.52	341.5	19	33	-2							
HALLE	143.36	354.5	19	36	0						22	48 PP
COLLMBERG	143.45	353.3	19	36	0						23	20
BROKEN HILL	143.66	217.3	19	34	-3							
RACIBORZ	143.79	347.4	19	37	0							
JENA	143.96	354.7	19	36	-1						20	45
PRUHONICE	144.54	351.2	19	36	-2						41	36 SS
FELDBERG	144.85	358.0	19	45	6							
DOURBES	144.96	2.3	19	40	1							
KASPERSKE H.	145.51	352.0	19	38	-2						20	30
FOLINIERE	145.82	8.5	19	40	-1							
BRATISLAVA	145.83	347.6	19	43	2						23	0 PP
VIENNA-H.	145.90	348.4	19	43A	2						30	15 SKKS
BUDAPEST	146.04	345.0	19	44	3						20	39
PARIS	146.12	5.0	19	41	0						20	15

STUTTGART	146.27	356.9	19	41	0					20	22	
STRASBOURG	146.51	358.7	19	43	1					20	9	
KSARA	147.66	310.6	19	47	3					23	13	PP
GARCHY	147.68	4.6	19	57	13					20	9	PKP2
BESANCON	147.85	0.9	19	45	1							
BELGRADE	148.08	341.3	19	27	-17					23	20	PP
CHUR	148.17	356.3	19	52	8							
ZAGREB	148.31	347.6	19	45	0							
TRIESTE	148.88	350.4	19	48	2					19	52	PKP2
SOFIA	148.92	335.9	19	51	5					21	15	
CLERMONT-FD.	149.19	4.9	19	49	3							
PADOVA	149.38	352.8	19	54	8					21	44	
BANDEIRA	149.57	192.7	19	53A	6							
PAVIA	149.85	356.5	19	55	8					22	34	
SERRA PILAR	150.78	24.1	19	45K	-3					20	0	PKP2
ISOLA	150.92	359.5	19	58	9							
FLORENCE X.	151.06	353.2	19	51	2					24	15	PP
MONACO	151.37	358.9	19	57	8							
BAGNERES	151.48	10.1	19	58	8							
AQUILA	152.15	349.3	19	59	8					23	39	PKS
ROME	152.74	350.5	19	54K	3	27	1	4		23	51	PP
TOLEDO	153.50	18.7	20	4	12	26	34	-24		24	16	PP
MESSINA	155.61	342.9	19	54	-1					20	18	PKP2
BANGUI	164.21	229.2	20	3	-2				20 16			

AUGUST 25 8.H 31.M 50.S EPICENTRE -20.68-178.49 DEPTH= 576.KM

A=-0.93605 B=-0.02470 C=-0.35101 D=-0.0264 E= 0.9997
G= 0.3509 H= 0.0093 K=-0.9364 HT= 4.5

DEPTH OF FOCUS= 0.086R

SE= 1.37

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SUVA	3.84	310.3	1	24	1						3	33	
APIA	9.37	44.2	2	9A	-4	3	53	-6					
PORT VILA	12.80	281.0	2	48K	1	5	8	7					
NOUMEA	14.11	260.7	3	1K	1	5	29	5					
KOUMAC	16.13	267.4	3	21K	2	6	1	1					
ONERAHI	16.29	201.1	3	24	3	6	12	9					
KARAPIRO	17.96	195.5	3	38	1						10	22	SCP
TUAI	18.45	190.8	3	40	-1	6	41	1			10	25	SCP
CHATEAU	19.16	194.3	3	46	-2						14	10	SCS
TARATA	19.45	196.8	3	52	1						10	26	SCP
WELLINGTON	21.32	194.1	4	6	-2	7	25	-2			14	13	SCS
COBB RIVER	21.67	198.2	4	10	-1	7	32	-1					
KAIMATA	23.38	199.1	4	25	-2	7	58	-2			14	18	SCS
HONIARA	23.60	295.1	4	26K	-3						7	2	
GEBBIES PASS	24.12	195.9	4	31	-2	8	9	-3			14	27	SCS
ROXBURGH	26.70	199.3	4	56	0	8	57	5			7	34	*SP
BRISBANE	27.04	250.1	4	58	-1	8	54	-4					
RIVERVIEW	29.88	237.6	5	24K	1	9	41	-1	6	56	8	14	PCP
CANBERRA	32.03	236.0	5	42K	0	10	13	-2	7	15	7	17	PP
RABAUL	32.90	295.9	5	46K	-3						8	10	
CHARTERS TS.	33.01	264.7	5	50K	0	10	28	-2					
PORT MORESBY	34.95	283.5	6	5K	-1	10	58	-1	7	42	8	24	PCP
TOOLANGI	35.42	233.7	6	10	0	11	4	-2			7	49	PP
MACQUARIE I.	37.86	201.4	6	32K	2	11	44	2					
ADELAIDE	40.13	240.0	6	48	0	12	10	-5			15	48	SCS
HAWAII V.OB.	45.89	31.2	7	32	-1	13	39	3					
HONOLULU	46.23	26.7	7	35	-1	13	46	5	9	2	16	35	SCS
KIPAPA	46.37	26.8	7	35	-2				9	1			
GUAM	49.57	310.1	8	0	-1	13	51	-36			8	53	PCP
CAPE HALLETT	52.05	184.4	8	20	1								
DUMONT	53.04	199.3	8	25	-1	15	12	-1			10	15	PP
SCOTT BASE	57.67	183.7	8	59	1								
MUNDARING	58.84	244.5	9	5K	-1	16	29	1					
PERTH	59.16	244.5				16	34	2			21	57	SS
WILKES	63.63	205.2	9	36A	-1	17	27	0	11	29	20	49	SS
MANILA	68.97	295.6	10	10	0	18	30	1					
SOUTH POLE	69.45	180.0	10	13	0	18	42	7					
MATUSIRO	70.08	324.0	10	15	-1	18	43	1					
ABUYAMA	70.39	321.1	10	18K	0								
MIRNY	70.65	205.1	10	19	-1	18	47	-1	12	17	13	5	PP
LEMBANG	72.58	269.2	10	32K	1	19	12	2					

DJAKARTA	73.53	269.5	10	34	-2	19	30	10				
TANGERANG	73.72	269.5	10	36K	-1	19	22	0				
Y.-SAKHLINSK	75.91	333.8	10	49K	0	19	46	0	12	50		
PETROPAVLOVK	76.02	346.0	10	48K	-2	19	46	-1	12	50	13	48 PP
ZO-SE	77.46	310.2	10	57K	-1	20	3	1	12	57	14	0 *SP
VLADIVOSTOK	78.16	325.3	11	1K	0	20	12	3	12	59		
HONG KONG	78.37	299.2	11	4K	1	20	15	3	13	2	11	12 PCP
PRIEST	78.61	44.3	11	5A	1							
BERKELEY	78.62	42.1	11	4A	0	20	20	6	13	4	23	52 SS
LICK	78.69	42.9	11	5A	1				13	8		
CALISTOGA	78.89	41.4	11	6A	1							
PASADENA	79.14	47.2	11	6	-1	20	23	3	13	9		
BARRETT	79.38	49.1	11	6A	-2	20	23	1				
CANTON	79.41	299.6	11	10K	2	20	27	5	13	9	14	9 *SP
NANKING	79.70	309.9	11	11K	1	20	29	4	13	13	14	17 *SP
MINERAL	80.53	40.5	11	14A	0							
RENO	81.15	42.0	11	18A	1							
MAWSON	81.24	199.9	11	18A	0	20	40	-1	13	21	24	17 *SS
CHANGCHUN	82.26	322.6	11	23K	0	20	55	4	13	26	14	27 *SP
TUCSON	83.38	52.1	11	29	1	21	4	2			29	46 PKKP
TUCSON TELE.	83.51	52.1	11	30	1	21	14	11			29	46 PKKP
EUREKA	83.56	43.7	11	29	0						29	4 PKKP
MAGADAN	83.80	344.8	11	29	-1	20	58	-8				
LONGMIRE	84.33	35.3	11	31	-2							
ALBERNI	84.37	32.0	11	33A	0							
VICTORIA	84.59	33.2	11	34A	0							
SEATTLE	84.62	34.4	11	36	2							
SITKA	85.45	22.0	11	40	2							
PEKING	85.69	315.6	11	40K	0	21	29	5	13	43	14	43 *SP
DUGWAY	86.00	44.4	11	41A	0							
SALT LAKE C.	86.92	44.3	11	44	-1	21	40	5	13	51	15	17 PP
PRICE	87.03	45.7	11	46A	0							
PENTICTON	87.06	34.1	11	46A	0							
ALBUQUERQUE	87.87	51.4	11	51	1				13	54		
SIAN	87.97	307.7	11	52K	2	21	53	9	13	56	21	25 SKS
COLLEGE	88.48	12.6	11	51	-2	21	48	-1	13	57	29	45 PKKP
FLAMING GRGE	88.62	45.1	11	23	-30				13	31		
KUNMING	89.02	297.2	11	58K	3	22	1	7	14	1	21	32 SKS
BUTTE	89.17	39.5	11	56	0	22	1	6	14	4	15	34 PP
HUNGRY HORSE	89.55	37.0	12	1	3							
BOZEMAN	89.91	40.4	11	59	0	22	7	5	14	18	15	40 PP
CHENGTU	90.20	302.7	12	2K	1	22	12	8	14	6	15	4 *SP
BANFF	90.26	34.1	12	0A	-1							
GOLDEN	90.78	47.6	12	3	0							
LARAMIE	91.35	46.1	12	5	-1						22	24
YAKUTSK	92.08	338.2	12	7K	-2	21	43	-38				
LANCHOW	92.51	307.6	12	12K	1	22	33	9	14	18	15	19 *SP
SANTA LUCIA	92.72	127.2	12	11	-1						14	15
WICHITA MTS.	93.65	54.4	12	15	-1	22	42	8	14	21	15	56 PP
RAPID CITY	94.13	44.3	12	18	-1							
ULAN-BATOR	95.31	319.4	12	23	-1	22	5	0				
TULSA	96.22	54.1	12	27	-1	22	12	3	14	33	23	4 S
MANHATTEN	96.81	50.8	12	31	0							
CHITTAGONG	97.36	291.0	12	33	0	22	17	2	14	34	16	38 PP
LAWRENCE	97.70	51.4	12	34	-1							
SHILLONG	98.36	294.1	12	37	-1						16	46
IRKUTSK	98.59	322.7	12	37	-2	22	20	-5				
AREQUIPA	99.43	111.5	12	44	2							
ROLLA	99.82	53.3	12	44	0							
CALCUTTA	100.44	290.2									22	28
FLORISSANT	101.25	52.8	12	47	-4							
ESEN BULAK	101.53	315.3	12	52	0	22	36	1				
BOKARO	103.08	290.7	17	10	251						22	44
VISHAKHAPTNM	103.51	284.0	17	15	254						18	59
DEHRA DUN	111.39	295.4	17	29	0						18	21
NEW DELHI	111.75	293.4	17	29K	-1							
POONA	112.36	282.2	17	51	20						18	16
SEMIPALATNSK	112.75	317.1	17	19	-12	23	21	-2				
BOMBAY	113.40	282.3									18	22
CARACAS	113.70	87.3									18	36
ALERT	113.72	7.4	17	33	0							
PALISADES	114.07	53.3	13	28	-246	24	42	74	15	52	25	38 *SSKS
BREBEUF	114.74	48.5	17	35	0	23	30	-1			18	42 PP
LAHORE	114.77	296.1	17	36	1							
FRUNSE	115.97	308.5				23	36	1			18	54 PP
WARSAK DAM	117.45	298.4	17	41	0							
TRINIDAD	118.92	89.0	17	44	0							
TASHKENT	119.85	306.5	17	46	1	23	50	1			19	18 PP
QUETTA	120.84	293.5	17	48K	1	23	59	7			19	25 PP

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

HALIFAX	121.81	49.7	17	50	1						
KIMBERLEY	125.97	205.4	17	59K	2						
SCORESBY SD.	128.27	9.8	18	4	2						
KEVO	128.55	349.0	18	0	-2					20	33 SKP
APATITY	129.00	344.9	18	2A	-1	24	18	2	20 31	23	11 PPP
TROMSOE	129.91	352.1	17	55	-10						
SODANKYLA	130.67	347.5	17	52	-14	24	20	0		21	30 PKS
KIRUNA	131.37	350.6	17	55	-12					21	28 PKS
BULAWAYO	131.54	214.9	18	0	-8					20	44
KAJAANI	133.20	344.6	17	59	-12					20	42 SKP
SHIRAZ	133.28	291.7	18	1	-10					20	38
REYKJAVIK	133.82	14.0								20	52 PP
TEHERAN	134.03	300.1							17 48	20	51 PP
WINDHOEK	134.41	200.3								20	54
SIDA	134.94	12.1								20	55 PP
UMEA	135.07	348.4	18	0	-14					20	52 SKP
MOSCOW	135.83	331.4	18	8	-8					23	47 PPP
PULKOVO	135.88	339.5	18	16	0	24	39	8		20	55 PP
BROKEN HILL	136.18	219.4	18	11	-5					20	58
SKALSTUGAN	136.51	353.0	18	4	-13					20	57 SKP
NURMIJARVI	136.97	343.4	18	0	-18					20	59 SKP
HELSINKI	137.18	343.0	18	18	0					20	59 SKP
TIFLIS	137.99	309.9	18	23	3						
UPPSALA	139.21	347.6	18	13	-9					27	11 SKKS
GOTEBORG	142.23	350.8	18	26	-2					21	15 SKP
BANDEIRA	142.79	199.1	18	28A	-1					18	30 PKP2
KARLSKRONA	143.04	346.9	18	30	1					21	18 SKP
SIMFEROPOL	143.83	319.6	18	30	-1				20 53	21	42 PP
COPENHAGEN	144.10	349.4	18	30K	-1						
LWIRO	144.87	232.8	18	36K	4					29	24
WARSAW	145.05	339.0	18	33K	0					18	36 PKP2
LWOW	145.86	333.8	18	36	2				20 47	22	11 PKS
DURHAM	145.88	3.2	18	36A	2					19	6
IASI	146.13	327.5	18	37A	3						
BACAU	146.90	327.2	18	42A	7						
KSARA	146.92	300.6	18	39K	4				20 49	22	11 PP
KRAKOW	147.25	337.9	18	39	3					18	47 PKP2
WITTEVEEN	147.67	354.1	18	40	4						
RACIBORZ	147.81	339.7	18	39	2					18	48 PKP2
SKALNATE PL.	147.86	336.7	18	41	4						
JERUSALEM	147.92	297.1	18	39	2				18 55		
COLLMBERG	148.14	346.3	18	37K	0						
HALLE	148.17	347.6	18	38	1				18 57		
CAMPULUNG	148.74	327.1	18	44	6						
BUCHAREST	148.76	324.9	18	52A	14					20	44 PP
JENA	148.78	347.7	18	39	1				20 55	22	24 PP
PRAGUE	148.93	343.8	18	41	3				20 49	21	54 *SPKP
PRUHONICE	148.98	343.6	18	40	2					40	42 SS
KEW	149.23	2.2	18	41	2				21 1	22	8
CHEB	149.42	346.2	18	37	-2				20 41		
HURBANOVO	149.70	337.5	18	52	13						
BUDAPEST	149.73	336.1	18	42	3					19	41 SKKS
BRATISLAVA	149.83	339.0	18	40	0					21	3 PP
FELDBERG	150.01	351.1	18	44	4						
KASPERSKE H.	150.01	344.1	18	40	0				21 0	22	25 PP
DOURBES	150.54	356.0	18	44	3					18	57 PKP2
HEIDELBERG	150.77	350.3	18	42	1						
BELGRADE	151.27	331.3	18	43A	1					21	6
STUTTGART	151.28	349.3	18	42	0				21 3	22	31 PP
SOFIA	151.40	325.1	18	47	5					22	10 PP
TUBINGEN	151.55	349.4	18	42	0					19	1
STRASBOURG	151.71	351.2	18	44	2					22	15 PKS
EBINGEN	151.91	349.4	18	45	2					19	5
PARIS	151.92	358.6	18	54	11					19	5 PKP2
FOLINIERE	151.92	2.8	18	44	1						
RAVENSBURG	152.18	348.2	18	44	1					19	4
ZAGREB	152.25	338.0	18	49	6						
CHUR	153.09	347.8	18	46	2					19	31
TRIESTE	153.13	340.8	18	45	1					41	34 SS
BESANCON	153.24	353.2	18	46	1					19	8 PKP2
GARCHY	153.43	357.6	18	55A	10					22	49 PP
PADOVA	153.90	343.3	18	50	4					19	14 PKP2
ATHENS	154.18	316.7	18	46K	0					19	13
CLERMONT-FD.	154.94	357.3	18	49	2						
FLORENCE X.	155.57	342.8	18	48	0					41	22 SS
ISOLA	156.11	350.1	18	53	5					19	25
AQUILA	156.18	337.8	18	51	2	25	4	5		23	2 PP
MONACO	156.49	349.2	18	50	1					19	21
BANGUI	156.78	228.1	18	52A	3					23	38 PP

ROME	156.90	338.8	18	51	1			28	40	SKKS
BAGNERES	157.64	2.6	18	54	3			19	36	
MESSINA	158.73	328.2	18	53	1	21	0	23	16	PP
TOLEDO	160.27	12.8	18	56A	3	20	24	23	24	PP
GRANADA	162.96	14.1	19	50A	54			23	38	PP
MALAGA	163.20	16.6	18	58A	2	21	14	23	39	PP
ALMERIA	163.51	11.3	18	59	2			23	30	PP
BENI ABBES	170.02	18.8	19	4	3	21	23	20	24	PKP2

AUGUST 26 6.H 48.M 53.S EPICENTRE 34.20 139.53 DEPTH= 0.KM

A=-0.63054 B= 0.53799 C= 0.55945 D= 0.6491 E= 0.7607
G=-0.4256 H= 0.3631 K=-0.8289 HT= 0.4

SE= 2.74

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
OSIMA	0.58	347.9	0	14A	-1	0	23	-3				
NAGATURO	0.69	305.8	0	16K	-1	0	26	-2				
MERA	0.76	19.0	0	20A	2	0	32	2				
AJIRO	0.92	337.6	0	19K	-1	0	32	-2				
MISIMA	1.04	332.8	0	21K	-1	0	34	-3				
HATIDYOZIMA	1.12	168.7	0	22	-1	0	37	-2				
OMAESAKI	1.15	290.7	0	23K	0	0	39	-1				
SHIZUOKA	1.21	309.9	0	24K	0	0	37	-5				
YOKOHAMA	1.23	4.6	0	25A	0	0	44	2				
HUNATU	1.44	334.6	0	28	0	0	48	1				
TOKYO C.M.O.	1.49	7.0	0	30A	2	0	51	2				
HONGO	1.52	7.4	0	30K	1	0	51	1				
HAMAMATU	1.58	289.8	0	28K	-2	0	48	-3				
KOHU	1.67	331.8	0	32K	1	0	53	0				
TITIBU	1.82	348.4	0	35	2	1	0	3				
TYOSI	1.87	35.2	0	32A	-2	1	0	2				
IIDA	1.92	313.9	0	35K	1	1	2	2				
KUMAGAYA	1.95	356.5	0	36A	1	1	3	3				
TUKUBASAN	2.07	12.9	0	36K	-1	1	4	0				
KAKIOKA	2.10	14.6	0	37	0	1	6	2				
MAEBASI	2.23	350.4	0	41A	2	1	11	3				
OIWAKE	2.27	339.7	0	42	3	1	13	4				
MITO	2.31	19.2	0	40A	0	1	10	0				
NAGOYA	2.32	295.4	0	40K	0	1	9	-1				
UTUNOMIYA	2.36	6.7	0	41A	0	1	10	-1				
MATUMOTO	2.41	328.5	0	44A	3	1	19	7				
TU	2.54	282.3	0	44K	1	1	13	-2				
GIHU	2.57	298.6	0	44	0	1	17	1				
MATUSIRO	2.57	335.6	0	45A	1	1	21	5				
KAMEYAMA	2.61	285.3	0	44K	0	1	15	-2				
NAGANO	2.70	336.6	0	48K	2	1	23	4				
OWASE	2.76	268.3	0	46K	0	1	17	-4				
HIKONE	2.90	292.5	0	49K	0	1	23	-2				
ONAHAMA	2.97	21.8	0	51K	2	1	31	5				
SHIRAKAWA	2.97	10.7	0	50	1	1	28	2				
TAKADA	3.08	340.6	0	54K	3	1	34	5				
NARA	3.09	280.0	0	50	-1	1	28	-1				
TOYAMA	3.14	323.4	0	58K	6	1	42	11				
TSURUGA	3.19	298.0	0	48	-5	1	31	-1				
SIOMISAKI	3.22	257.7	0	52	-1	1	24	-9				
KYOTO	3.24	285.8	0	52	-1	1	28	-5				
HUKUI	3.28	305.3	0	55K	1	1	43	9				
KANAZAWA	3.31	315.5	1	5	11	1	53	18				
OSAKA	3.34	278.9	0	54	-1	1	37	1				
ABUYAMA	3.34	282.7	0	52K	-3							
WAKAYAMA	3.61	271.7	0	57	-2	1	38	-5				
KOBE	3.63	278.9	0	58	-1	1	38	-5				
HUKUSIMA	3.63	11.9	0	59	0							
MAIZURU	3.63	291.6	0	58K	-1	1	45	2				
NIIGATA	3.74	354.2	1	2A	2	1	48	2				
SUMOTO	3.83	273.4	1	1	-1	1	43	-5				
WAZIMA	3.83	326.8	1	9	7	2	13	25				
AIKAWA	3.95	345.2	1	5A	2	1	42	-9				
TOYOOKA	4.09	290.3	1	4K	-1	1	50	-5			1	24
YAMAGATA	4.10	9.1	1	6	1	1	56	1				
TOKUSIMA	4.11	269.6	1	9	3	1	57	2				
SENDAI	4.21	14.9	1	6A	-1	1	57	-1				
HIMEJI	4.25	275.5	1	9	-5	1	48	-11				

ISINOMAKI	4.47	18.4	1	10	-1	2	2	-2			
TAKAMATU	4.54	273.1	1	10	-2	1	59	-7			
MUROTO	4.56	259.5	1	7	-5	1	59	-7			
TOTTORI	4.59	288.1	1	13	1	2	14	7			
TSURUGISAN	4.60	267.2	1	12	-1	1	58	-9			
OKAYAMA	4.66	277.5	1	12	-1	2	4	-5			
SAKATA	4.70	2.9	1	17	3	2	15	5			
KOTI	5.03	264.3	1	21	2	2	20	2			
MIZUSAWA	5.09	14.2	1	20	0	2	39	19			
YONAGO	5.23	285.3	1	20	-2	2	21	-2			
SAIGO	5.45	293.2	1	28	3	2	36	7			
MATSUE	5.46	285.1	1	28	3	2	26	-3			
AKITA	5.53	4.6	1	28K	2	2	32	1			
MATUYAMA	5.62	268.2	1	24	-3	2	39	6			
MORIOKA	5.65	13.0	1	25	-2	2	30	-4			
ASHIZURI	5.65	256.7	1	25	-2	2	29	-5			
MIYAKO	5.78	19.1	1	28	-1						
UWAZIMA	5.90	262.5	1	30	-1	2	24	-16			
HAMADA	6.19	278.6	1	32K	-3	2	42	-6			
HATINOHE	6.52	13.6	1	37	-3	2	54	-2			
OOITA	6.66	263.9	1	47	5	3	10	11			
AOMORI	6.69	8.2	1	39	-3	2	59	-1			
SIMONOSEKI	7.14	270.4	1	49	1						
MIYAZAKI	7.18	253.8	1	48	-1	3	51	39			
ASOSAN	7.18	262.0	1	43	-6	3	17	5			
KUMAMOTO	7.50	261.9	1	55	2	3	22	2			
HUKUOKA	7.63	267.9	2	0	5	3	42	18			
HAKODATE	7.66	6.9	1	59	3	3	21	-3			
SAGA	7.75	265.6	2	0	3	3	49	23			
MORI	7.93	5.6							2	18	
KAGOSIMA	7.99	253.3	2	2	2	3	41	8			
MURORAN	8.19	7.6				3	36	-1			
NAGASAKI	8.19	262.4	2	2	-1	3	50	12			
URAKAWA	8.34	16.9	1	59	-6	3	40	-1			
YAKUSIMA	8.50	246.4	2	6A	-1						
TOMAKOMAI	8.57	10.2							4	13	
HIROO	8.60	19.2	2	12	3				3	5	
SUTTSU	8.61	3.5	2	27	18				4	44	
SAPPORO	8.97	8.6	2	13	-1	4	3	6			
HUKUE	9.06	263.5	2	21	6	4	25	26			
OBIHIRO	9.17	17.2	2	14	-3						
KUSIRO	9.56	22.0							3	10	
ASAHIGAWA	9.82	12.2	2	24A	-2						
RUMOE	9.87	8.8	2	24	-2						
NEMURO	10.27	25.6	2	26	-6	4	17	-12			
ABASHIRI	10.48	19.2							4	13	
VLADIVOSTOK	10.72	328.5	2	40K	2				4	47	
WAKKANAI	11.33	7.7	2	44	-2	4	49	-6			
KURILSK	12.74	27.7	3	3	-2						
MAWASHI	12.95	235.3	3	6	-2						
Y.-SAKHLINSK	13.03	9.7	3	5	-4				6	22	
CHANGCHUN	14.63	315.3	3	32	2				3	39	*SP
UGLEGORSK	14.99	6.5	3	42	7				6	43	SS
ZO-SE	15.76	263.8	3	47	2	6	50	9			
NANKING	17.51	268.8	4	7	0	7	28	7	4	13	*SP
TAIPEI	18.11	244.5	4	51	36						
HWALIEN	18.65	241.6	4	27	6						
PEKING	19.49	294.2	4	32K	1	8	13	7			
OKHA	19.50	6.1	4	30	-1				8	25	SS
TAWU	20.17	239.0	4	38	-1						
HENGCHUN	20.50	238.5	4	57	15						
GUAM	21.18	165.8	5	4	15	8	35	-6	5	0	PP
PETROPAVLOVK	23.23	30.1	5	9A	-1				6	1	PPP
PAOTOW	24.22	293.9	5	18	-1	9	38	2	5	24	*SP
HONG KONG	25.22	248.6	5	34	5	9	35	-18	6	31	PP
SIAN	25.27	278.8	5	28K	-1				5	33	*SP
CANTON	25.44	251.1	5	34	3				5	41	*SP
MANILA	25.61	225.1	5	32	-1	10	12	13			
MAGADAN	26.43	12.9	5	40	0						
ULAN-BATOR	27.93	309.3	5	51K	-3	10	30	-7			
YAKUTSK	28.54	350.3	5	58K	-1	10	45	-2	6	44	PP
LANCHOW	29.16	283.9	6	2	-3	10	54	-3	6	8	*SP
CHENGTU	30.09	273.2	6	12	-2						
IRKUTSK	30.96	316.5	6	19	-2	11	28	2			
KUNMING	33.08	264.1	6	38	-2						
ESEN BULAK	34.77	303.7	6	53A	-1	12	10	-15			
TIKSI	37.92	354.5	7	20	-1	13	10	-3	8	41	PP
RABAUL	40.01	160.2	7	43	5						

SHILLONG	41.89	271.3	7	49	-5					14	21	
CHITTAGONG	43.29	267.1	8	4	-1	14	29	-4	8 14	9	48	PP
PORT MORESBY	43.96	169.1	8	17K	6	14	31	-12				
SEMIPALATNSK	45.50	309.5	8	19	-4							
CALCUTTA	46.07	269.3								15	8	
HONIARA	47.52	152.2	8	42	3					19	2	
DEHRA DUN	51.45	283.7	9	8	-1					16	21	
COLLEGE	52.31	31.0	9	15	-1							
NEW DELHI	52.79	282.0	9	16A	-3	16	41	-6				
CHARTERS TS.	54.36	172.2	9	29	-2							
TASHKENT	54.62	299.6	9	31	-2					17	25	PS
WARSAK DAM	55.28	290.4	9	36	-2							
SVERDLOVSK	56.28	319.6	9	42A	-3	17	32	-2				
MADRAS	57.53	263.7								17	57	
HAWAII V.OB.	59.13	86.5	9	56	-9							
SITKA	59.55	39.2	10	8	0							
MOULD BAY	59.68	15.8	10	7	-2							
POONA	59.96	272.9	10	11A	0							
QUETTA	60.35	288.1	10	11	-2	18	25	-2		12	29	PP
BOMBAY	60.63	273.8								18	32	
BRISBANE	62.52	166.7	10	27	-1	18	52	-3				
ALERT	63.05	3.2	10	30	-1	19	0	-1				
ASHKABAD	63.70	299.4	10	32	-4	19	34	24				
APATITY	64.64	335.9	10	39K	-3	19	17	-4		14	2	PP
KEVO	65.54	339.3	10	49	1							
RESOLUTE	65.72	13.7	10	48K	-1							
SODANKYLA	66.98	337.2	10	54	-3					13	24	PP
TROMSOE	67.90	341.0	11	0	-3							
ALBERNI	68.33	44.5	11	5	0							
KAJAANI	68.46	334.0	11	3	-3							
RIVERVIEW	68.54	169.6								28	1	
MOSCOW	68.61	323.5	11	5K	-2	20	8	-1		11	29	PCP
KIRUNA	68.62	339.1	11	5	-2	20	9	0		24	5	
ADELAIDE	68.81	180.7	11	9	1	20	9	-3				
VICTORIA	69.50	44.8	11	12	-1							
TEHERAN	69.68	299.9	11	12	-2	20	27	5				
CANBERRA	69.72	171.8	11	10	-4					11	32	
PULKOVO	69.85	329.4	11	17	2	20	22	-2				
SEATTLE	70.58	45.2	11	11	-8							
PENTICTON	71.28	42.7	11	23	0							
LONGMIRE	71.32	45.9	11	22	-2					20	24	
GORIS	71.42	305.4	11	27A	3	20	41	-1				
TOOLANGI	71.62	175.0	11	27	2							
NURMIJARVI	71.72	331.8	11	23	-3	20	43	-3				
SHIRAZ	71.76	293.8	11	24A	-2	20	55	9		14	14	PP
HELSINKI	71.80	331.4	11	25	-1							
BANFF	72.53	39.6	11	30	-1							
SKALSTUGAN	73.98	338.3	11	38	-1							
MINERAL	74.75	51.5	11	34K	-10							
SCORESBY SD.	74.77	353.6	11	43	-1							
UPPSALA	74.82	333.6	11	43	-1	21	16	-5		25	58	SS
HUNGRY HORSE	74.91	41.5	11	45	0							
CALISTOGA	75.00	53.4	11	46K	1							
BERKELEY	75.62	54.0	11	49K	0	21	31	1		12	29	PCP
SIMFEROPOL	76.26	315.2	11	50	-2	21	28	-9		14	43	PP
LICK	76.32	54.2	11	53K	0							
RENO	76.34	51.4	11	54K	1							
BUTTE	77.07	42.9	11	57	0							
PRIEST	77.63	54.7	12	1K	1							
BOZEMAN	78.13	42.5	12	3	0							
WARSAW	78.59	326.5	12	6	1	22	10	8		22	53	PS
LWOW	78.75	323.4	12	9	3					22	26	SCS
EUREKA	78.83	49.8	12	6	-1							
KARAPIRO	79.18	151.7	12	8	0							
COPENHAGEN	79.75	332.7								13	48	
CHATEAU	80.28	152.4	12	14	0							
DUGWAY	80.38	47.8	12	15A	0							
PASADENA	80.44	55.3	12	35	20	22	31	10				
TUAI	80.57	151.1	12	17	1							
KRAKOW	80.57	325.4	12	19	3					12	29	PCP
SALT LAKE C.	80.62	46.8	12	16	0							
KSARA	81.54	305.1	12	25	4	22	38	5	13 1	15	29	PP
BOULDER CITY	81.61	52.1	12	24	3							
PRICE	81.96	47.3	12	24K	1							
FLAMING GRGE	82.00	45.6	12	23	0							
COLLMBERG	82.78	329.4	12	26A	-1							
BUDAPEST	82.78	323.9	12	30	3					15	29	PP
PRAGUE	83.07	327.9	12	31	2	23	5	17		15	50	PP
GLEN CANYON	83.10	49.8	12	29	0							

JERUSALEM	83.18	303.8	12	33	4						
BRATISLAVA	83.22	325.3	12	30	0	22	48	-2	15	42	PP
RAPID CITY	83.45	40.2	12	30	-1						
VIENNA-H.	83.50	325.7	12	33	2				24	16	PKS
JENA	83.65	329.9	12	34	2	22	42	-12	15	47	PP
BELGRADE	83.90	321.3	12	37	4	22	53	-4	24	33	
LARAMIE	83.97	43.4	12	34	0						
KASPERSKE H.	84.13	327.7	12	34	0				15	47	
GOLDEN	85.14	44.5	12	40	1	23	11	2			
DE BILT	85.24	333.7				23	19	9	32	7	SSS
DURHAM	85.29	338.6				23	17	7			
ZAGREB	85.44	324.2	12	47	6						
STUTTGART	86.26	329.6	12	44	-1	23	20	0			
TUCSON	86.50	53.1	12	46	0						
TUCSON TELE.	86.52	53.0	12	46	0						
STRASBOURG	87.04	330.3	12	50	1	23	19	-8	28	14	SS
DOURBES	87.08	332.8	12	51	2	23	22	-5			
ALBUQUERQUE	87.59	48.7	12	52	1				14	12	
PADOVA	87.69	326.1	13	37	45				24	37	
SCHEFFERVLLE	88.50	14.9	12	56K	0						
TARANTO	88.62	319.8	12	42	-14				23	42	PS
BESANCON	88.83	330.4	12	55	-2						
PARIS	88.92	333.2	13	2	4						
FLORENCE X.	89.21	325.3	12	57	-2	23	32	-15			
CHIAVARI	89.69	326.8	13	7	6	23	11	-41	16	29	PP
GARCHY	89.96	332.0	13	1	-2				13	47	
ROME	90.03	323.4	13	12	9	23	45	-10	16	35	PP
MANHATTEN	90.40	40.2	13	5	0	23	34	-24			
DUBUQUE	90.89	34.6	13	8	1	23	35	-28			
MESSINA	91.17	319.2	13	8	0				30	8	SS
LAWRENCE	91.27	39.6	13	7	-2						
WICHITA MTS.	92.49	44.4	13	13	-1	24	23	6	14	1	PP
TULSA	93.22	42.0	13	17	-1						
ROLLA	93.82	38.3	13	20	0	23	52	-36			
BREBEUF	95.19	22.7	13	26K	-1	24	37	35			
BLOOMINGTON	95.46	34.2	13	35	7	24	8	4			
PALISADES	99.08	25.0				24	23	0			
WILKES	102.67	191.6							33	1	SS
SOUTH POLE	124.02	180.0	18	59	-2						
CHINCHINA	128.83	47.4	19	9	-1						
FUQUENE	129.57	45.1							22	59	PKS
BOGOTA	130.05	46.1	19	12	0				22	45	PKS
AREQUIPA	147.05	65.4	19	47	4						
SANTA LUCIA	154.96	96.8	20	4	9						

AUGUST 26 22.H 35.M 11.S EPICENTRE 34.21 139.47 DEPTH= 23.KM

A=-0.62987 B= 0.53851 C= 0.55970 D= 0.6498 E= 0.7601
G=-0.4254 H= 0.3637 K=-0.8287 HT= 0.4

SE= 3.05

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S
OSIMA	0.56	352.3	0	11K	-2	0	19	-4				
NAGATURO	0.64	307.0	0	11	-3							
MERA	0.76	22.7	0	13A	-3	0	26	-1				
AJIRO	0.89	339.9	0	15K	-3	0	28	-2				
MISIMA	1.00	334.7	0	18K	-1	0	33	0				
OMAESAKI	1.10	290.7	0	18K	-3	0	33	-2				
HATIDYOZIMA	1.14	166.5	0	21	0	0	35	-1				
SHIZUOKA	1.16	310.8	0	19	-2	0	37	0				
YOKOHAMA	1.22	6.9	0	22A	0	0	42	4				
HUNATU	1.41	336.0	0	23	-2	0	45	2				
TOKYO C.M.O.	1.48	8.8	0	26A	0	0	47	2				
HONGO	1.51	9.3	0	27	1	0	47	1			1	29
HAMAMATU	1.53	289.7	0	24K	-3	0	44	-2				
KOHU	1.63	333.0	0	28K	0	0	52	3				
TITIBU	1.79	349.8	0	31	1	0	55	2				
IIDA	1.87	314.4	0	31K	-1	1	5	10				
TYOSI	1.88	36.6	0	30	-2	0	56	1				
KUMAGAYA	1.93	357.8	0	33A	1	1	0	4				
TUKUBASAN	2.07	14.3	0	32A	-2						0	58
KAKIOKA	2.09	15.9	0	33	-2	0	57	-3				
MAEBASI	2.20	351.6	0	37A	1	1	6	3				
OIWAKE	2.24	340.6	0	39	2	1	10	6				
NAGOYA	2.27	295.5	0	35	-2	1	4	-1				

MITO	2.31	20.4	0 37K	-1	1 6	0	
UTUNOMIYA	2.35	7.9	0 38	0	1 7	0	
MATUMOTO	2.37	329.2	0 40	1	1 14	6	
TU	2.49	282.1	0 39	-1			
GIHU	2.52	298.8	0 40	-1	1 10	-1	
MATUSIRO	2.54	336.4	0 41K	0	1 13	1	
KAMEYAMA	2.56	285.2	0 39	-2	1 9	-3	
TAKAYAMA	2.65	317.3	0 43	0	1 23	8	
NAGANO	2.66	337.4	0 46	3	1 23	8	
OWASE	2.72	267.9	0 48	4	1 21	5	
HIKONE	2.85	292.6	0 45	-1	1 20	0	
SHIRAKAWA	2.96	11.7	0 45	-2	1 20	-3	
ONAHAMA	2.97	22.7	0 54	7	1 20	-3	
NARA	3.04	279.8	0 44	-4			
TAKADA	3.05	341.3	0 54	6	1 34	9	
TOYAMA	3.10	323.9	0 55	6	1 38	12	
TSURUGA	3.14	298.1	0 48	-2	1 31	4	
SIOMISAKI	3.17	257.1	0 48	-2	1 20	-8	
KYOTO	3.19	285.6	0 49	-1	1 26	-2	
HUKUI	3.23	305.5	0 51	0	1 21	-8	
KANAZAWA	3.26	315.9	1 1	10	1 45	15	
ABUYAMA	3.29	282.6	0 49K	-3			
OSAKA	3.29	278.7	0 45	-7	1 29	-2	2 41
WAKAYAMA	3.56	271.4	0 57	1	1 32	-6	
KOBE	3.58	278.7	0 52	-4	1 32	-6	
HUKUSIMA	3.62	12.6	0 56	0	1 39	0	
NIIGATA	3.71	354.9	0 58	0	1 42	0	
SUMOTO	3.78	273.2	0 56	-3	1 38	-5	
WAZIMA	3.79	327.2	1 11	12			
AIKAWA	3.92	345.8	1 1	0	1 53	6	
TOYOOKA	4.04	290.3	1 0	-2			
TOKUSIMA	4.06	269.3	1 8	5			
YAMAGATA	4.09	9.8	1 2	-1			
SENDAI	4.21	15.5	1 5A	0	1 57	3	
ISINOMAKI	4.46	19.0	1 7	-1	1 56	-5	
TAKAMATU	4.49	272.9	1 10	1	1 55	-6	
TSURUGISAN	4.55	266.9	0 59	-11			
SAKATA	4.68	3.4	1 16	4			
KOTI	4.99	264.0	1 15	-1	2 8	-6	
MIZUSAWA	5.08	14.7	1 17	0	2 30	14	
YONAGO	5.18	285.3	1 24	5	2 25	6	
AKITA	5.52	5.1	1 24	1			
MORIOKA	5.64	13.5	1 24	-1	2 30	0	
MIYAKO	5.78	19.5	1 42	15			
HAMADA	6.14	278.5	1 33	1	2 37	-6	
HATINOHE	6.51	14.0			2 44	-9	
OOITA	6.61	263.6	1 49	10	3 13	18	
AOMORI	6.67	8.6	1 41	1			
KUMAMOTO	7.46	261.7	1 53	2	3 37	22	
HUKUOKA	7.59	267.7	2 17	25	3 38	19	
KAGOSIMA	7.95	253.1	2 0	3	3 44	16	
NAGASAKI	8.15	262.2	2 0	0	3 31	-2	
URAKAWA	8.34	17.2	2 1	-2	3 37	0	
YAKUSIMA	8.47	246.1	2 1	-4			
OBIHIRO	9.17	17.5	2 16	2			
CHANGCHUN	14.59	315.3	3 28	1			
PEKING	19.44	294.2	4 28	0	7 56	-5	
LANCHOW	29.11	283.9	5 58	-4			
COLLEGE	52.32	31.0	9 11	-1			
NEW DELHI	52.74	282.0	9 15	-1			
QUETTA	60.30	288.0	10 5	-5			
ALERT	63.03	3.2	10 26	-2			
RESOLUTE	65.72	13.7	10 43K	-2			
SODANKYLA	66.95	337.2	10 51	-2			
KAJAANI	68.42	334.0	10 59	-3			
KIRUNA	68.58	339.1	11 1	-2			
CANBERRA	69.75	171.7	11 18	7			
TOOLANGI	71.64	175.0	11 23	1			
NURMIJARVI	71.68	331.8	11 19	-3			
SHIRAZ	71.71	293.7	11 24A	2			
SKALSTUGAN	73.95	338.2	11 34	-2			
BUTTE	77.09	42.8	11 53	-1			
BOZEMAN	78.15	42.5	11 59	0			
EUREKA	78.86	49.8	12 2	-1			
WOODY	79.12	54.3	12 3	-2			
KARAPIRO	79.22	151.7	12 4	-1			
DUGWAY	80.41	47.7	12 11K	-1			
PRICE	81.99	47.3	12 19K	-1			

FLAMING GRGE	82.02	45.5	12	19	-1							
COLLMBERG	82.74	329.4	12	23	-1						13	7
PRUHONICE	83.04	327.8	12	32	7							
LARAMIE	83.99	43.4	12	29	-1							
KASPERSKE H.	84.09	327.7	12	30	-1							
GOLDEN	85.17	44.5	12	35	-1							
ALBUQUERQUE	87.62	48.6	12	47	-1							
WICHITA MTS.	92.51	44.4	13	10	-1							

AUGUST 26 23.H 30.M 38.S EPICENTRE -3.66 140.26 DEPTH= 40.KM

A=-0.76736 B= 0.63807 C=-0.06349 D= 0.6394 E= 0.7689
G= 0.0488 H=-0.0406 K=-0.9980 HT= 7.1

DEPTH OF FOCUS= 0.001R

SE= 2.32

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
PORT MORESBY	8.91	130.1	2	10A	1							
RABAUL	11.90	93.0	2	48	-2						5	8
DARWIN	12.73	226.6	3	57	56	5	14	-8				
CHARTERS TS.	17.34	160.7	4	0	0	7	17	7				
GUAM	17.59	14.6	4	4	1	7	27	11				
HONIARA	20.38	107.3	4	34	-2							
MANILA	26.32	314.2	5	37	3	9	52	-10				
BRISBANE	26.45	154.4	5	37	2	9	59	-5				
KOUMAC	28.80	127.6	5	56K	0							
PORT VILA	30.85	119.0	6	14A	0							
ADELAIDE	31.18	182.4	6	17A	0						7	4
NOUMEA	31.43	128.4	6	19K	-1							
RIVERVIEW	31.68	162.6	6	19A	-3						12	4
CANBERRA	32.52	166.6	6	29	0						7	37 PP
LEMBANG	32.65	263.1	6	28	-2							
TANGERANG	33.59	264.4	6	37	-1							
TOOLANGI	34.08	172.6	6	45	2						17	40
MUNDARING	36.09	216.0	6	59	-1							
HONG KONG	36.28	316.5				12	30	-9				
CANTON	37.38	316.6	7	10	0	12	53	-2				
TARRALEAH	38.87	172.7	7	26	3							
ZO-SE	39.07	333.6	7	24A	-1	13	21	0				
MATUSIRO	40.04	357.4	7	32A	-1	13	33	-3				
NANKING	40.97	331.7	7	41A	1	13	51	2				
MEDAN	42.17	279.4	7	52	2							
KUNMING	46.31	310.2	8	24A	0	15	10	3				
KARAPIRO	46.92	141.3	8	29	1						9	12
TARATA	47.00	143.4	8	31	2							
VLADIVOSTOK	47.18	351.7	8	31	1	15	21	2				
CHATEAU	47.70	142.6	8	35	1							
SIAN	47.89	324.5	8	36A	0	15	31	2				
TUAI	48.45	141.2	8	40	0							
WELLINGTON	48.58	145.3				15	28	-11			19	28
CHENGTU	48.60	317.2	8	41	0	15	40	1				
PEKING	48.78	335.4	8	43	0	15	43	1				
ROXBURGH	48.79	153.0				15	52	10				
CHANGCHUN	49.15	345.7	8	45	-1	15	46	-1				
PAOTOW	52.00	330.9	9	7	0	16	29	3				
LANCHOW	52.15	322.5	9	9A	1	16	29	0				
CHITTAGONG	53.92	301.0	9	22A	0				9	34	11	27 PP
LHASA	57.57	308.6	9	48A	0	17	44	3				
PETROPAVLOVK	58.57	12.9	9	54	-1							
ULAN-BATOR	59.09	334.5	9	58A	0	18	2	1				
DUMONT	62.89	180.1	10	22	-2							
ESEN BULAK	63.20	327.4	10	27A	1						18	59
IRKUTSK	63.48	336.2	10	29	1	19	1	4				
MAGADAN	63.57	6.0	10	28	-1							
HONOLULU	65.22	64.7	10	41	2							
KIPAPA	65.33	64.6	10	40	0							
WILKES	65.93	192.7	10	42	-2							
YAKUTSK	66.00	354.6	10	45A	1	19	32	4				
HAWAII V.OB.	67.36	67.3	10	53	0							
DEHRA DUN	68.25	304.6	10	58	-1							
NEW DELHI	68.44	302.5	10	59A	-1							
POONA	68.96	291.3	11	3K	0							
MIRNY	70.78	198.1	11	3	-11							
LAHORE	71.67	304.8	11	19	0							

ALMATA-2	73.21	317.2	11	29K	1							
SCOTT BASE	75.45	174.4	11	41	0							
QUETTA	77.50	301.8	11	53A	0	21	44	4	12 8	22	2	SKS
DUZHANBE	77.94	310.5	11	52	-3							
TASHKENT	78.27	313.3	11	58A	1	21	51	3				
MAWSON	81.82	202.2	12	16A	0				12 33			
COLLEGE	85.71	24.0	12	34	-2				12 47	15	52	PP
ASHKABAD	85.86	308.3	12	37	0	23	5	0				
VANNOVSKAYA	86.06	308.3	12	38	1							
SOUTH POLE	86.36	180.0	12	39	0							
SVERDLOVSK	87.38	327.2	12	42K	-2	23	20	0				
SHIRAZ	89.82	299.6	12	54	-2	23	15	-27	13 51	23	40	
SITKA	90.01	32.9	13	8	12							
TEHERAN	91.19	305.6	13	18	16	24	1	6				
TANANARIVE	91.38	251.1	13	5	2							
GORIS	95.34	309.2	13	22K	1							
TIFLIS	96.50	311.4	13	25	-1							
BERKELEY	98.15	52.4	13	46K	12							
APATITY	99.76	338.1	13	53	1<							
MOSCOW	100.12	325.9	13	42	-1							
ALERT	100.62	3.0	13	44	-1							
SODANKYLA	102.32	338.7	13	51	-1					29	53	PKKP
EUREKA	102.95	50.5	13	56	1					17	58	PP
KAJAANI	103.01	335.4	13	55	-1							
KIRUNA	104.31	340.1	14	0	-1							
UZHGOROD	110.97	321.1	14	41	-228							
GOLDEN	110.99	48.8	18	35	6					34	42	SS
ALBUQUERQUE	111.12	54.0	18	32	3					19	13	
PRUHONICE	115.12	324.6								20	14	
KASPERSKE H.	116.07	324.1	18	40	1					19	37	
WICHITA MTS.	117.47	52.6	18	43	2					20	5	PP
TRIESTE	117.50	320.5								20	11	PP
STUTTGART	118.72	325.3	18	45	1							
TULSA	119.31	50.6	18	47	2					20	17	PP
DOURBES	120.54	328.5	18	51	4							
ROLLA	121.55	47.1	19	2	13							
BANGUI	121.79	272.9	18	51	1					20	19	PP
BREBEUF	128.89	30.2	19	2	-1					21	17	PP
AREQUIPA	142.79	123.4	19	29	0							
BERMUDA	143.09	36.4	19	37	7					41	29	SS
CHINCHINA	144.21	86.6	19	35A	4							
BOGOTA	145.75	87.2	19	37	3					41	44	SS
FUQUENE	146.08	85.7	19	37	2							
SAN JUAN	150.34	58.5	19	44	3							
CARACAS	152.20	74.4	19	53	9					23	52	PP

AUGUST 27 2.H 18.M 59.S EPICENTRE 40.27 137.98 DEPTH= 270.KM

A=-0.56845 B= 0.51211 C= 0.64390 D= 0.6693 E= 0.7430
G=-0.4784 H= 0.4310 K=-0.7651 HT= -1.8

DEPTH OF FOCUS= 0.037R

SE= 2.14

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
AKITA	1.72	108.1	0	48	6	1	16	1				
SAKATA	1.98	133.3	0	46K	2	1	14	-4				
AOMORI	2.20	74.7	0	46A	0	1	20	-2				
AIKAWA	2.26	174.7	0	46K	-1	1	19	-4				
NIIGATA	2.49	160.2	0	50	1	1	28	1				
MORIOKA	2.51	102.2	0	48K	-1	1	24	-4				
HAKODATE	2.60	52.9	0	50A	0	1	8	-21				
MORI	2.67	46.1	0	52A	1	1	30	0				
MIZUSAWA	2.68	114.2	0	51	0	1	29	-1				
HATINOHE	2.72	83.5	0	50	-1	1	28	-3				
YAMAGATA	2.73	137.0	0	51K	0	1	30	-1				
WAZIMA	3.01	196.7	0	56K	2							
SENDAI	3.02	130.6	0	54K	0	1	31	-5				
SUTTSU	3.03	33.0	0	55	1	1	35	-2				
MURORAN	3.04	46.8				1	35	-2				
MIYAKO	3.13	100.2	0	54	-1	1	33	-5				
ISINOMAKI	3.17	124.4	0	54K	-2	1	35	-4				
TAKADA	3.18	176.2	0	57K	1	1	39	0				
HUKUSIMA	3.18	141.7	0	55	-1							
TOMAKOMAI	3.58	47.8	1	5	5	1	47	-1				

SHIRAKAWA	3.60	150.2	1	0K	0	1	47	-1			
NAGANO	3.60	177.2	1	1	1						
TOYAMA	3.62	190.0	1	2	1	1	29	-19			
MATUSIRO	3.73	177.2	0	58	-4	1	48	-2			
SAPPORO	3.76	41.0	1	2A	0	1	49	-2			
KANAZAWA	3.88	196.1	1	5	1	1	55	2			
MAEBASI	3.96	167.2	1	4	0						
OIWAKE	3.96	173.4	1	5	1						
UTUNOMIYA	4.00	157.7	1	4	-1	1	54	-2			
MATUMOTO	4.02	180.2	1	6	1						
ONAHAMA	4.03	144.5	1	3K	-2	1	57	1			
URAKAWA	4.07	61.0	1	6K	0	1	55	-2			
TAKAYAMA	4.16	188.2	1	8	1						
KUMAGAYA	4.26	164.6	1	7K	-1	1	39	-22			
MITO	4.35	152.5	1	7A	-2	1	58	-5			
TITIBU	4.37	168.3	1	8	-1						
TUKUBASAN	4.38	157.0	1	7A	-2	1	59	-5			
KAKIOKA	4.39	156.1	1	7	-2	1	59	-5			
HIROO	4.49	61.8	1	10	-1	2	1	-5			
RUMOE	4.56	35.2	1	9	-2						
KOHU	4.62	174.2	1	12	0	2	8	-1			
OBIHIRO	4.72	54.2	1	12	-1	2	7	-4			
IIDA	4.75	181.5	1	14	0						
HONGO	4.77	162.2	1	14	0				2	12	
ASAHIGAWA	4.79	41.6	1	14K	0	2	7	-5			
TOKYO C.M.O.	4.79	162.5	1	13	-1	2	9	-3			
HUNATU	4.81	172.3	1	14	0	1	31	-42			
TSURUGA	4.86	198.7	1	15	0						
GIHU	4.96	191.6	1	18	2	2	19	3			
YOKOHAMA	5.01	164.2	1	20	3						
TYOSI	5.08	152.6	1	5	-13	1	20	-59			
NAGOYA	5.16	189.3	1	18K	-1	2	22	2			
HIKONE	5.18	195.9	1	19	0	2	24	3			
MISIMA	5.20	171.2	1	19	0						
AJIRO	5.29	170.0	1	17	-3						
SHIZUOKA	5.30	176.3	1	20	0	1	23	-60			
VLADIVOSTOK	5.37	304.0	1	21K	0	2	19	-6			
KUSIRO	5.52	58.6	1	20	-3	2	21	-7			
KYOTO	5.54	199.5	1	24	1	2	30	1			
MERA	5.54	164.1	1	19	-4						
KAMEYAMA	5.55	193.0	1	24K	1	2	24	-5			
HAMAMATU	5.55	182.3	1	22K	-1						
OMAESAKI	5.67	178.0	1	25	0						
TU	5.68	192.3	1	26	1						
ABUYAMA	5.72	200.3	1	26K	1						
WAKKANAI	5.82	26.6	1	29K	2	2	34	-1			
NARA	5.84	197.7	1	27	0						
OSAKA	5.94	199.9	1	26	-2	2	44	7			
ABASHIRI	5.99	49.3							2	35	
NEMURO	6.44	59.2	1	32	-2	2	41	-8			
TAKAMATU	6.72	209.0	1	48	10	3	0	5			
TOKUSIMA	6.76	204.8	1	45	7						
SIOMISAKI	7.04	195.3	1	42	0	2	14	-48			
OOITA	8.69	218.0							3	43	
KUMAMOTO	9.47	220.5	2	16	4						
CHANGCHUN	10.07	294.8	2	20A	0	4	16	6			
ZO-SE	16.42	241.4	3	35	-1	6	31	1			
PEKING	16.68	276.2	3	37	-2	6	35	0			
NANKING	17.52	248.1	3	46	-2	6	51	0			
PETROPAVLOVK	18.99	40.9	4	3	0						
MAGADAN	20.92	18.4	4	21	-1						
PAOTOW	21.25	279.9	4	24	-1	8	1	1			
YAKUTSK	22.35	349.7	4	35K	-1						
HONG KONG	26.98	235.5	5	19	0	9	41	6			
LANCHOW	27.08	272.1	5	18	-2						
MANILA	29.48	214.9	5	42	1						
CHATRA	43.86	268.3	7	43	2						
ALMATA	44.73	294.8	7	46A	-2						
COLLEGE	47.84	33.7	8	13	1						
ANDIJAN	48.80	293.1	8	19K	0	15	3	2			
PORT MORESBY	50.14	168.2	8	29A	-1				9	2	
NEW DELHI	50.59	276.5	8	32K	-1						
TASHKENT	50.74	295.0	8	34K	0	15	29	2			
SVERDLOVSK	50.95	316.3	8	45	9						
LAHORE	51.31	281.4	8	36	-2						
WARSAK DAM	52.23	285.6	8	45	0						
SITKA	55.71	41.3	9	11	1						
KIPAPA	56.88	89.0	9	19	1						
HONOLULU	56.89	89.2	9	19	1						

QUETTA	57.49	283.8	9	22K	-1	16	58	1			
APATITY	58.62	334.2	9	29K	-2						
KEVO	59.45	337.8	9	35	-1						
VANNOVSKAYA	59.96	296.0	9	31	-9						
HAWAII V.OB.	60.13	89.1	9	40	-1						
RESOLUTE	60.13	14.2	9	39A	-2						
CHARTERS TS.	60.54	171.1	9	42	-2						
SODANKYLA	60.93	335.6	9	45K	-1					11	59 PP
TROMSOE	61.77	339.7	9	50	-2						
KAJAANI	62.49	332.3	9	54K	-2				10 57	12	12 PP
KIRUNA	62.52	337.7	9	56K	-1					12	15 PP
MOSCOW	63.05	321.4	10	1A	1						
PULKOVO	64.03	327.6	10	15	9						
ALBERNI	64.93	45.8	10	12	0						
TEHERAN	65.71	297.0	10	15	-2						
NURMIJARVI	65.82	330.1	10	16	-2				11 20	12	43 PP
HELSINKI	65.91	329.7	10	18	0				11 23	12	41 PP
VICTORIA	66.11	46.0	10	19	-1						
KIROVOBAD	66.36	303.9	10	21K	0	18	48	0			
PENTICTON	67.70	43.7	10	30A	0						
SKALSTUGAN	67.91	336.9	10	30K	-1				11 34	12	53 PP
LONGMIRE	68.02	46.9	10	30A	-2						
SHIRAZ	68.31	291.0	10	33K	0	18	59	-12	11 31	12	53 PP
UPPSALA	68.86	332.2	10	36K	-1					13	2 PP
SIMFEROPOL	71.15	313.2	10	51	0	19	45	1			
HUNGRY HORSE	71.21	42.1	10	52	1						
MINERAL	71.97	52.2	10	56A	0						
KARLSKRONA	72.28	330.3	10	59	2						
CALISTOGA	72.41	54.1	10	59A	1						
GOTEBORG	72.44	332.9	11	1	3						
BERKELEY	73.08	54.6	11	2A	0						
LWOW	73.18	321.8	11	3	0					12	8
BUTTE	73.48	43.3	11	5	1						
RENO	73.55	52.0	11	5A	0						
LICK	73.80	54.7	11	7A	1						
BOZEMAN	74.51	42.8	11	11	1						
UZHGOROD	74.82	321.7	11	11	-1						
ADELAIDE	74.87	179.4	11	13K	1						
KRAKOW	74.91	323.9	11	13	0						
PRIEST	75.16	55.2	11	15A	1						
EUREKA	75.87	50.1	11	19	1						
CANBERRA	75.90	170.7	11	19A	1						
COLLMBERG	76.95	328.1	11	24K	0				-	14	59
DUGWAY	77.22	47.9	11	26A	1						
PRUHONICE	77.32	326.5	11	26K	0				12 25	14	19 PP
SALT LAKE C.	77.38	46.9	11	27	1						
TOOLANGI	77.77	173.9	11	29	1				12 40		
JENA	77.81	328.6	11	28	-1				12 34	14	49 PP
PASADENA	78.00	55.4	11	30	0						
KASPERSKE H.	78.37	326.4	11	31	-1				12 32	14	20 PP
FLAMING GRGE	78.63	45.5	11	33	0						
PRICE	78.75	47.2	11	35A	1						
GLEN CANYON	80.11	49.6	11	41	0						
LARAMIE	80.40	43.2	11	43	1						
STUTTGART	80.43	328.4	11	43	0				12 49		
TUCSON	83.82	52.6	12	0	0						
TUCSON TELE.	83.82	52.5	12	1	1				13 6		
FOLINIERE	84.03	333.8	12	1	0						
ALBUQUERQUE	84.49	48.1	12	5	2				13 7	12	32
KARAPIRO	85.09	151.1	12	8	2						
CHATEAU	86.22	151.7	12	12	0						
TUAI	86.46	150.4	12	13	0						
MANHATTEN	86.52	39.4	12	12	-1						
DUBUQUE	86.57	33.8	12	14	1						
LAWRENCE	87.35	38.7	12	16	-1						
WICHITA MTS.	88.97	43.4	12	25	0				13 32	15	51 PP
TULSA	89.49	40.9	12	28	1						
FLORISSANT	89.74	35.7	12	29	1						
ROLLA	89.78	37.2	12	29	0						
ST. LOUIS 1	89.93	35.7	12	29	0						
BREBEUF	90.03	21.6	12	30K	0						
BLOOMINGTON	91.09	33.0	12	42	7						
SCOTT BASE	119.16	173.3	18	16	0						
ST. CLAUDE	121.07	22.2	18	39	19						
MAWSON	121.29	205.7	18	21A	0				19 29		
SOUTH POLE	130.08	180.0	18	37	-1						
BYRD STATION	131.52	166.9	18	41	1					21	40 PP
AREQUIPA	145.13	55.7	19	8	3						

AUGUST 27 16.H 20.M 6.S EPICENTRE 38.31 142.48 DEPTH= 48.KM

A=-0.62399 B= 0.47914 C= 0.61730 D= 0.6090 E= 0.7931
G=-0.4896 H= 0.3760 K=-0.7867 HT= -1.1

DEPTH OF FOCUS= 0.002R

SE= 2.83

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
ISINOMAKI	0.92	278.0	0	16K	-1	0	30	0				
SENDAI	1.24	268.8	0	21K	0	0	37	-1				
MIZUSAWA	1.34	308.3	0	22	-1	0	43	3				
MIYAKO	1.40	343.6	0	22K	-2	0	40	-1				
YAMAGATA	1.68	268.7	0	27K	0	0	47	-1				
HUKUSIMA	1.68	251.3	0	26K	-1	0	49	1				
MORIOKA	1.73	324.1	0	28K	0	0	48	-1				
ONAHAMA	1.85	223.3	0	27A	-3	0	49	-3				
SHIRAKAWA	2.15	237.2	0	32	-2	1	0	0				
SAKATA	2.16	286.7	0	36A	2	1	2	2				
AKITA	2.33	308.0	1	38	61	2	11	67				
HATINOHE	2.34	341.9	0	36	-1	1	7	2				
MITO	2.50	220.4	0	36A	-3	1	8	-1				
UTUNOMIYA	2.72	230.6	0	46	4	1	13	-1				
NIIGATA	2.73	262.9	0	53K	11	1	28	14				
KAKIOKA	2.77	222.2	0	39A	-4	1	9	-6				
TUKUBASAN	2.82	223.1	0	40A	-3	1	12	-5				
AOMORI	2.83	332.9	0	44A	0	1	26	9				
TYOSI	2.89	207.3	0	41K	-4	1	17	-2				
KUMAGAYA	3.28	229.9	0	48A	-2	1	33	5				
MAEBASI	3.32	236.0	0	49	-2	1	35	6				
AIKAWA	3.35	266.4	0	50	-1	1	39	9				
HONGO	3.38	220.7	0	50	-1						1	27
TOKYO C.M.O.	3.41	220.6	0	50	-2	1	26	-6				
TAKADA	3.57	251.5	0	50	-4	1	33	-2				
TITIBU	3.57	230.5	0	51	-3	1	33	-3				
YOKOHAMA	3.66	219.2	0	53	-2	1	38	0				
OIWAKE	3.70	239.0	0	56	0	1	38	-1				
HAKODATE	3.74	339.9	0	58K	2	1	47	7				
NAGANO	3.78	245.7	0	58	1	1	56	15				
MATUSIRO	3.83	243.9	0	57A	-1	1	58	16				
URAKAWA	3.85	3.3	1	0	2	1	45	2				
MERA	4.00	213.0	1	0	0							
HIROO	4.02	8.9	1	1	1	1	45	-2				
MORI	4.06	339.5	1	9	8	2	3	15				
HUNATU	4.09	227.8	1	1	0	1	50	1				
KOHU	4.10	231.2	1	1	0	1	49	0				
MATUMOTO	4.14	241.7	1	3	1	2	0	10				
MURORAN	4.17	344.5	1	5	2	1	56	5				
AJIRO	4.24	220.9	1	0A	-3	1	46	-6				
MISIMA	4.26	222.8	1	1	-3	1	40	-13				
OSIMA	4.32	216.2	1	4	-1	2	50	55				
TOMAKOMAI	4.37	351.2	1	21	16	2	4	8				
TOYAMA	4.49	250.7	1	23	16	2	31	32				
WAZIMA	4.51	259.9	1	9	2							
OBIHIRO	4.64	6.5	1	13	4	2	9	7				
IIDA	4.65	234.7	1	9A	0	2	3	0				
SHIZUOKA	4.68	225.8	1	8	-2	2	1	-2				
TAKAYAMA	4.70	244.3	1	9	-1							
SUTTSU	4.80	339.8	1	17	6	2	16	9				
SAPPORO	4.83	350.1	1	11	-1	2	12	5				
KUSIRO	4.89	16.8	1	11	-2	2	2	-7				
KANAZAWA	4.97	250.9	1	16	2							
OMAESAKI	5.05	224.2	1	19	4							
HAMAMATU	5.25	228.4	1	26	8	2	19	1				
NAGOYA	5.42	236.4	1	20	0	2	26	4				
GIHU	5.42	239.4	1	21	1	2	25	3				
ASAHIGAWA	5.47	359.2	1	19A	-2	2	30	7				
HUKUI	5.48	247.6	1	24	3							
NEMURO	5.54	24.1	1	17	-5	2	16	-9				
HATIDYOZIMA	5.64	203.6	1	24	1							
RUMOE	5.67	353.7	1	22	-2							
TSURUGA	5.78	244.6	1	25	0	2	40	9				
HIKONE	5.85	240.7	1	27	1	2	42	9				
ABASHIRI	5.87	12.8	1	29	3	3	10	37				
KAMEYAMA	5.94	236.3	1	32	5	2	41	6				
TU	6.00	234.9	1	30	2							
KYOTO	6.34	240.9	1	32	-1	2	47	2				
NARA	6.46	238.0	1	35	0							

ABUYAMA	6.53	240.4	1	33A	-3						
OWASE	6.61	232.1	1	34	-3	3	18	26			
OSAKA	6.68	239.0	1	41	3	2	50	-3			
TOYOOKA	6.73	248.0	1	39	1						
KOBE	6.90	240.6	1	41	0	3	27	28			
WAKKANAI	7.13	355.5	1	46K	2	3	13	8			
TOTTORI	7.21	249.8	1	47	2						
SUMOTO	7.28	239.4	2	6	20	3	40	32			
SIOMISAKI	7.29	230.4	1	44	-2						
SAIGO	7.59	256.7	1	49	-1						
TOKUSIMA	7.66	238.9	1	53	2						
TAKAMATU	7.88	242.2	1	53	-1	4	6	43			
KURILSK	8.00	28.5	1	53	-3						
MATSUE	8.06	252.2	1	59	2	3	37	9			
MUROTO	8.42	235.7	1	41	-21						4 4
KOTI	8.67	239.5	2	14	9	3	50	7			
Y.-SAKHLINSK	8.71	1.1	2	3	-3						
MATUYAMA	9.03	243.3	2	10	0	4	48	56			
HAMADA	9.03	251.1	2	13K	3	3	57	5			
VLADIVOSTOK	9.36	304.2	2	15A	0						
ASHIZURI	9.53	237.0									4 52
OOITA	10.17	243.4	2	27	1	4	59	39			
HUKUOKA	10.88	248.0	2	44	8	4	49	12			
KUMAMOTO	11.04	243.8	2	39	1						
NAGASAKI	11.67	245.3	2	47	1	5	24	28			
CHANGCHUN	14.07	298.5	3	16	-2						
PETROPAVLOVK	18.49	32.0	4	14	0						7 42 SS
ZO-SE	18.91	254.1	4	14	-5						
NANKING	20.32	259.3	4	30A	-4						
PEKING	20.45	283.1	4	32	-4	8	13	-4			
MAGADAN	21.92	11.4	4	50	0						8 54 PCP
YAKUTSK	25.01	345.7	5	21A	0	9	41	2			
PAOTOW	25.09	285.5	5	19	-2						
SIAN	27.27	271.8	5	41A	0						
ULAN-BATOR	27.48	302.0	5	41A	-2	10	24	5			
HONG KONG	29.03	244.8	5	57	0	10	34	-10			
CANTON	29.14	247.1	5	58A	0	10	51	6			
IRKUTSK	29.87	310.3	6	5A	0	11	5	8			
MANILA	30.20	224.6	6	6	-2	11	9	7			
LANCHOW	30.73	277.9	6	12	0	11	15	4			
ESEN BULAK	34.69	298.6	6	46A	-1	12	23	11			
KUNMING	36.00	260.4	6	57A	-1	12	34	1			
RABAUL	43.24	165.8									19 33
SHILLONG	44.28	268.7	8	13A	7						
SEMIPALATNSK	44.85	306.6	8	12	1						
CHITTAGONG	45.96	264.8	8	20	0						
CHATRA	47.37	273.1	8	33A	2	15	49	29			
COLLEGE	47.57	32.9	8	32	0						
DEHRA DUN	52.87	281.9	9	13	0						
KIPAPA	53.40	90.4	9	25	8						
NEW DELHI	54.33	280.5	9	22A	-2	17	9	13			
TASHKENT	54.74	298.0	9	27A	0						17 14 PS
LEMBANG	55.38	223.6	9	29A	-2						
WARSAK DAM	56.14	289.0	9	37	0						
HAWAII V.OB.	56.64	90.8	9	38	-2						
ALERT	58.81	3.7	9	55A	0						
RESOLUTE	61.16	14.8	10	11A	-1						
QUETTA	61.38	287.2	10	12A	-1	18	36	7			
APATITY	61.88	335.7	10	15A	-1	18	39	4			
KOUMAC	62.03	156.8	10	25	8						
POONA	62.16	272.3	10	16A	-2						
KEVO	62.55	339.3	10	20	-1						
ASHKABAD	63.79	298.8	10	29	0						
SODANKYLA	64.12	337.2	10	31A	0						12 40 PP
NOUMEA	64.35	155.3	10	42A	9						
TROMSOE	64.79	341.2	10	34	-2						
KIRUNA	65.63	339.3	10	40A	-1						
KAJAANI	65.82	334.1	10	41A	-1						13 2 PP
BRISBANE	66.06	170.0	10	46	2						
PENTICTON	66.67	44.9	10	46A	-1						
MOSCOW	66.74	323.5	10	47A	-1	19	37	2			13 19 PP
LONGMIRE	66.77	48.1	10	46	-2						
PULKOVO	67.52	329.5	10	52	-1						
NURMIJARVI	69.22	332.1	11	3A	0						13 27 PP
HELSINKI	69.33	331.7	11	4	0						
TEHERAN	69.71	299.9	11	7	1						
HUNGRY HORSE	70.28	43.6	11	10	0				11	19	
TIFLIS	70.70	308.2				20	29	7			

GORIS	70.98	305.5	11	14A	0							
SKALSTUGAN	71.04	338.8	11	14A	0					13	44	PP
UPPSALA	72.19	334.2	11	21A	0							
SHIRAZ	72.28	294.0	11	22A	0	20	43	3	11 31	14	7	PP
CANBERRA	73.51	174.4	11	38	9							
EUREKA	74.40	51.9	11	34	0				11 44			
SIMFEROPOL	75.01	315.8	11	38A	0	21	34	23		11	50	PCP
TOOLANGI	75.55	177.5	11	39	-2							
GOTEBORG	75.73	335.1	11	38	-4							
DUGWAY	75.89	49.8	11	44A	1							
PASADENA	76.18	57.4	11	55	11							
FLAMING GRGE	77.45	47.5	11	32	-20							
PRICE	77.45	49.3	11	52K	0							
KRAKOW	78.52	326.3	11	58	1					12	15	PCP
RACIBORZ	79.24	327.2	12	3	2					12	12	PCP
LARAMIE	79.37	45.3	11	55	-7							
COLLMBERG	80.42	330.6	12	8A	0					15	2	PP
GOLDEN	80.57	46.4	12	8	0							
HALLE	80.66	331.2	12	9	0							
PRAGUE	80.82	329.1	12	10	0							
BUDAPEST	80.83	325.0	12	10	0	22	19	6		12	24	PCP
PRUHONICE	80.84	328.9	12	10	0	22	32	19		15	13	PP
KSARA	81.09	306.1	12	13	2							
BRATISLAVA	81.16	326.5	12	11K	-1					15	29	PP
JENA	81.26	331.1	12	12	0					15	20	PP
VIENNA-H.	81.42	326.9	12	14	1							
KARAPIRO	81.75	154.2	12	13	-2				12 24			
KASPERSKE H.	81.90	328.9	12	16	1					15	32	PP
BELGRADE	82.14	322.5	12	17	0					23	12	PS
SOFIA	82.26	319.5	12	21	4					12	34	PCP
CHATEAU	82.89	154.7	12	18	-3				12 29			
TUAI	83.09	153.4							12 30			
ALBUQUERQUE	83.12	50.5	12	22	0				12 31			
STUTTGART	83.88	331.0	12	26	0					13	31	
SCHEFFERVLLE	83.90	16.5	12	25	-1							
LJUBLJANA	83.92	326.5	12	26A	0					15	35	PP
DOURBES	84.47	334.3	12	29	1							
TRIESTE	84.57	326.7	12	28	-1							
MANHATTEN	85.74	41.9	12	34	-1							
FLORENCE X.	87.13	326.9	12	36	-6							
FOLINIERE	87.28	336.5	12	42	0							
GARCHY	87.40	333.7	12	43	0					13	4	
WICHITA MTS.	87.91	46.2	12	45	0	23	28	5		16	18	PP
ROME	88.10	325.1	12	48	2					24	20	PS
TULSA	88.59	43.7	12	48	-1							
ROLLA	89.13	40.0	12	51	0	23	35	1				
ST. LOUIS 1	89.39	38.5				23	39	2				
MESSINA	89.56	321.0								16	35	PP
BREBEUF	90.47	24.5	12	57K	0					13	23	
BLOOMINGTON	90.73	35.9				23	42	-7				
PALISADES	94.35	26.8				24	21	1				
MAWSON	121.05	206.1	18	46K	-1				18 58			
SOUTH POLE	128.12	180.0	19	1	0							
BYRD STATION	128.82	167.2	19	0	-2							
ANTOFAGASTA	148.45	72.1	19	40	3							

AUGUST 28 8.H 13.M 8.S EPICENTRE 34.13 139.52 DEPTH= 0.KM

A=-0.63096 B= 0.53855 C= 0.55844 D= 0.6492 E= 0.7606
G=-0.4248 H= 0.3625 K=-0.8295 HT= 0.4

SE= 3.08

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
OSIMA	0.65	350.0	0	12A	-4							
MERA	0.83	18.0	0	17A	-2							
AJIRO	0.98	339.6	0	18K	-3	0	31	-5				
HATIDYOZIMA	1.05	167.4	0	22	0	0	37	-1				
MISIMA	1.10	334.8	0	19K	-4	0	33	-6				
OMAESAKI	1.17	294.1	0	22K	-2	0	38	-3				
SHIZUOKA	1.25	312.6	0	23K	-2	0	41	-2				
YOKOHAMA	1.30	4.8	0	24A	-2	0	43	-1				
HUNATU	1.50	336.0	0	28	0	0	51	2				
TOKYO C.M.O.	1.56	7.0	0	29A	0	0	50	-1				
HONGO	1.59	7.4	0	31	1	0	51	0			1	12

HAMANATU	1.60	292.2	0	27K	-3	0	46	-5			
KOHU	1.73	333.2	0	31K	-1	0	56	1			
TITIBU	1.88	349.1	0	34	0	0	58	-1			
TYOSI	1.93	34.2	0	34	-1	0	58	-2			
IIDA	1.96	315.5	0	33K	-2	1	1	0			
KUMAGAYA	2.02	356.8	0	35K	-1	1	4	2			
TUKUBASAN	2.14	12.7	0	35	-3						
KAKIOKA	2.17	14.3	0	35	-3	1	1	-5			
MAEBASI	2.30	350.9	0	38A	-2	1	9	0			
OIWAKE	2.34	340.4	0	41	1	1	14	4			
NAGOYA	2.34	297.1	0	39	-1	1	9	-1			
MITO	2.38	18.9	0	40	-1	1	8	-3			
UTUNOMIYA	2.43	6.7	0	41	-1	1	10	-3			
MATUMOTO	2.47	329.5	0	43	1	1	17	3			
TU	2.54	283.8	0	40	-3						
GIHU	2.59	300.1	0	42	-2						
KAMEYAMA	2.62	286.8	0	44	0	1	13	-4			
MATUSIRO	2.63	336.4	0	44K	-1	1	18	0			
TAKAYAMA	2.74	318.0	0	45	-1	1	30	9			
OWASE	2.75	269.7	0	42	-4	1	14	-7			
NAGANO	2.76	337.4	0	48	2	1	26	5			
HIKONE	2.92	293.9	0	47	-2	1	22	-3			
ONAHAMA	3.03	21.4	0	54	4	1	27	-1			
SHIRAKAWA	3.04	10.6	0	49	-1	1	20	-8			
NARA	3.10	281.3	0	49	-2	1	32	2			
TAKADA	3.14	341.2	0	54	2	1	33	2			
TOYAMA	3.19	324.3	0	59	6	1	40	8			
SIOMISAKI	3.19	258.8	0	53	0	1	25	-7			
TSURUGA	3.22	299.2	0	51	-2						
KYOTO	3.25	287.0	0	50	-3	1	23	-10			
HUKUI	3.31	306.4	1	0	6	1	46	11			
OSAKA	3.34	280.1	1	0	5	1	47	11		1	20
ABUYAMA	3.34	283.9	0	51K	-4						
KANAZAWA	3.35	316.4	1	3	8	1	47	11			
WAKAYAMA	3.61	272.8	0	58	0	1	38	-4			
KOBE	3.63	280.0	1	5	6						
MAIZURU	3.65	292.7	0	59	0	1	40	-4			
HUKUSIMA	3.70	11.8	1	1	1						
NIIGATA	3.80	354.4	1	2	1	1	50	3			
SUMOTO	3.82	274.5	0	59	-3	1	41	-7			
WAZIMA	3.88	327.5	1	10	8	2	7	18			
AIKAWA	4.02	345.6	1	4	0						
TOKUSIMA	4.10	270.6	1	12	7	1	59	4			
TOYOOKA	4.11	291.2	1	4	-2	1	53	-2			
YAMAGATA	4.17	9.1	1	7	1						
HIMEJI	4.25	276.4	1	4	-4	1	46	-13			
SENDAI	4.28	14.7	1	13	5	2	2	2			
TSURUGISAN	4.51	268.0	1	8	-3	1	57	-8			
ISINOMAKI	4.53	18.2	1	11	-1	2	1	-5			
TAKAMATU	4.53	274.0	1	11	-1	1	58	-8			
MUROTO	4.54	260.4	1	11	-1	1	56	-10			
TOTTORI	4.60	288.9	1	7	-6						
SAKATA	4.77	2.9	1	20	5						
KOTI	5.02	265.1	1	19	0	2	17	-1			
MIZUSAWA	5.16	14.1	1	24	3	2	29	7			
YONAGO	5.24	286.1				2	16				
MATSUE	5.47	285.8	1	30	5					3	10
SAIGO	5.47	293.9	1	45	20	2	57	27			
AKITA	5.60	4.6	1	37	10	3	11	38			
MATUYAMA	5.60	268.9	1	30	3	3	6	33			
ASHIZURI	5.63	257.4	1	23	-4	2	41	8			
MORIOKA	5.72	12.9	1	26	-2	2	22	-14			
MIYAKO	5.85	18.9								2	5
HAMADA	6.20	279.2	1	33K	-2	2	40	-8			
HATINOHE	6.59	13.5	1	53	12						
OOITA	6.64	264.5	1	45	4	3	12	13			
AOMORI	6.76	8.2	1	48	5						
MIYAZAKI	7.14	254.2	1	50	2					5	3
KUMAMOTO	7.48	262.4	1	52	-1	3	21	1			
HUKUOKA	7.62	268.4	2	1	6	3	33	10			
HAKODATE	7.73	6.9	2	0	3						
SAGA	7.73	266.1				4	27	61		2	36
KAGOSIMA	7.96	253.8	2	0	0	3	44	12			
NAGASAKI	8.18	262.9	2	0	-3	4	0	23			
URAKAWA	8.41	16.8	2	8	2	3	38	-5			
YAKUSIMA	8.47	246.8	2	8	1						
SUTTSU	8.68	3.5								3	52
HUKUE	9.05	263.9				4	58	59		2	44
OBIHIRO	9.24	17.1								3	16

VLADIVOSTOK	10.77	328.7	2	49	10							
CHANGCHUN	14.68	315.5	3	30	-1	6	19	4				
UGLEGORSK	15.06	6.5	3	42	6	6	50	26				
ZO-SE	15.75	264.0	3	47	2	6	51	10				
NANKING	17.50	269.0	4	11	4	7	33	12				
PEKING	19.51	294.4	4	31	-1	8	13	7				
PETROPAVLOVK	23.29	30.0	5	9	-1	9	25	5				
PAOTOW	24.24	294.0	5	19	-1	9	40	4				
HONG KONG	25.18	248.7	5	34	5	9	36	-16				
SIAN	25.27	279.0	5	27	-2	9	52	-2				
CANTON	25.41	251.2				9	55	-1				
MANILA	25.56	225.2	5	33	1	9	21	-37				
MAGADAN	26.50	12.9	5	43	2							
YAKUTSK	28.60	350.3	5	57A	-3	10	57	9				
LANCHOW	29.17	284.1	6	1	-4	10	59	2				
KUNMING	33.06	264.2	6	40	0	12	5	7				
ESEN BULAK	34.80	303.8	6	58	3							
RABAUL	39.95	160.1									18	38
LHASA	41.10	277.5	7	51	4							
SHILLONG	41.89	271.4	7	55	1							
SEMIPALATNSK	45.54	309.6	8	27	4							
CALCUTTA	46.06	269.4									20	3
ALMATA-2	48.36	300.2	8	44A	-2							
COLLEGE	52.37	31.0	9	15	-1							
NEW DELHI	52.79	282.1	9	18	-1							
CHARTERS TS.	54.30	172.2	9	30	0							
TASHKENT	54.65	299.6	9	33	0							
WARSAK DAM	55.29	290.5	9	34	-4							
DUZHANBE	55.86	296.6	9	41	-1							
SVERDLOVSK	56.33	319.6	9	41	-4							
SITKA	59.61	39.1	11	17	69							
MOULD BAY	59.75	15.8	10	7	-2							
QUETTA	60.36	288.1	10	10	-3	18	11	-16				
BRISBANE	62.46	166.7	10	31	3							
ALERT	63.12	3.2	10	29	-3							
ASHKABAD	63.73	299.4	10	34	-2							
APATITY	64.70	335.9	10	41	-1							
KEVO	65.61	339.3	10	49	1							
RESOLUTE	65.79	13.7	10	49	0							
SODANKYLA	67.04	337.2	10	55	-2							
TROMSOE	67.96	341.0	9	57	-66							
KAJAANI	68.52	334.0	11	5	-2							
MOSCOW	68.66	323.5	11	8	1							
KIRUNA	68.68	339.1	11	8	1							
TEHERAN	69.71	299.9	11	14	0							
PENTICTON	71.34	42.7	11	24	0							
TIFLIS	71.39	308.1	11	24	0							
GORIS	71.45	305.4	11	25	1	21	1	18				
NURMIJARVI	71.77	331.8	11	27A	1							
SHIRAZ	71.78	293.8	11	25	-1	20	42	-4	11	36	14	15 PP
SKALSTUGAN	74.04	338.3	11	37	-3							
MINERAL	74.80	51.5	11	42A	-2							
UPPSALA	74.88	333.6	11	46	2							
HUNGRY HORSE	74.97	41.5	11	44	-1							
CALISTOGA	75.05	53.4	11	49K	4							
BERKELEY	75.67	53.9	11	46A	-3							
SIMFEROPOL	76.30	315.2	11	54	1							
LICK	76.37	54.1	11	57A	4							
BUTTE	77.13	42.9	11	57	0							
BOZEMAN	78.19	42.5	12	2	-1							
EUREKA	78.89	49.8	12	6	-1							
DUGWAY	80.44	47.7	12	15K	0							
SALT LAKE C.	80.68	46.8	12	16	0							
PRICE	82.02	47.3	12	16K	-7							
FLAMING GRGE	82.05	45.5	12	22	-2							
COLLMBERG	82.83	329.4	12	29	1							
PRUHONICE	83.13	327.8	12	32	3							
BRATISLAVA	83.27	325.3	12	28	-2							
RAPID CITY	83.51	40.1	12	35	4							
JENA	83.70	329.9	12	33	1						13	18
KASPERSKE H.	84.19	327.7	12	32	-3							
STUTTGART	86.32	329.6	12	45	0							
SCHEFFERVLLE	88.57	14.9	12	58	2							
GARCHY	90.02	332.0	13	7	4							
BREBEUF	95.25	22.7	13	30A	3							
AREQUIPA	147.09	65.5	19	51	8							

AUGUST 28 10.H 59.M 56.S EPICENTRE 37.82 22.89 DEPTH= 95.KM

A= 0.72953 B= 0.30809 C= 0.61063 D= 0.3890 E=-0.9212
G= 0.5625 H= 0.2376 K=-0.7919 HT= -0.9

DEPTH OF FOCUS= 0.010R

SE= 2.10

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ATHENS	0.67	77.0	0	21A	3	0	34	3			15	8	SCS
SKOPJE	4.29	345.3	1	4	0						2	4	SG
SOFIA	4.88	3.8	1	13	1	2	10	2			1	26	P*
TARANTO	5.12	302.8	2	17	62						2	44	
TITOGRAD	5.38	330.0	1	19	0						1	30	P*
ISTANBUL UN.	5.71	53.9	1	27	4								
REGGIO CALA.	5.73	275.0	1	19	-5	2	12	-17					
MESSINA	5.81	276.0	1	25A	0	2	18	-13					
SARAJEVO	6.92	332.2	1	38	-2						2	54	
BUCHAREST	7.02	19.1	1	44K	3								
BELGRADE	7.23	346.0	1	44	0	3	28	23			3	49	
TIMISOARA	8.02	351.6	1	55	0	3	36	11			3	8	
SZEGED	8.67	347.2				2	53	-48			2	5	PG
ROME	8.98	300.2	2	9K	1	2	27	-81			3	39	
KECSKEMET	9.39	346.5	2	13	-1	3	38	-20			2	33	P*
ZAGREB	9.51	329.4	2	14K	-1	4	16	15			3	30	
BUDAPEST	10.06	344.8	2	22	-1	4	35	21			2	36	PP
KISHINEV	10.18	23.6	2	25	1	4	25	8					
LJUBLJANA	10.31	325.5	2	24	-2	4	8	-12			3	12	
TRIESTE	10.38	321.8	2	26K	-1	4	11	-11			5	12	*SS
HURBANOVO	10.61	342.6	2	40	10	4	38	10					
FLORENCE X.	10.64	307.7	2	19	-11	3	59	-29					
PRATO	10.79	307.8	2	31	-1	4	27	-5					
UZHGOROD	10.81	357.9	2	34	1								
BOLOGNA	10.97	311.1	2	37	2						3	58	
SIMFEROPOL	11.03	46.3	2	38K	2	4	40	2			5	24	
BRATISLAVA	11.17	339.6	2	36K	-2	4	32	-9					
PADOVA	11.20	316.1	2	36K	-2	4	33	-9			2	47	PP
KSARA	11.27	106.8	2	40A	1	4	35	-8			3	7	
CUGLIERI	11.39	286.4	2	39	-1	4	54	8					
VIENNA-H.	11.46	337.5	2	40K	-1	4	53	5			3	38	PGPG
SKALNATE PL.	11.51	351.3	2	44	2						3	16	
NIEDZIKA	11.74	351.7	2	46	1								
JERUSALEM	11.78	117.1	2	43	-3								
LWOW	12.02	3.5	2	50	1								
CHIAVARI	12.12	306.6	2	45	-5	4	51	-13			3	34	
KRAKOW	12.41	351.1	2	55	1	5	9	-1			3	0	PP
PAVIA	12.63	309.9	2	58K	1	5	23	7			3	38	
RACIBORZ	12.71	346.1	2	58	0	5	28	10			3	11	PP
MONACO	13.12	301.6	3	3	0								
KASPERSKE H.	13.16	332.2	3	2	-2						3	22	
CHUR	13.37	316.7	3	6	0	5	29	-4					
ISOLA	13.54	303.0	3	10	1	5	36	-1					
PRUHONICE	13.55	336.4	3	8K	-1	5	33	-4					
PRAGUE	13.67	336.3	3	10K	0	5	35	-5					
RAVENSBURG	13.91	319.9	3	12K	-1						4	48	
SOTCHI	13.99	60.5	3	16	1	5	57	9					
CHEB	14.39	331.8	3	15	-5	5	23	-34					
WARSAW	14.47	355.4	3	23K	2	6	7	8			3	47	PPP
EBINGEN	14.50	320.0	3	20K	-1						5	50	
TUBINGEN	14.68	321.2	3	22K	-1								
STUTTGART	14.74	322.3	3	23K	-1						3	45	
BASLE	14.84	315.7	3	26K	0	5	5	-63			4	2	
NEUCHATEL	14.90	313.0	3	26	0	6	4	-5					
COLLMBERG	15.19	335.7	3	29	-1	6	26	10					
STRASBOURG	15.37	319.2	3	32	0	6	25	5	3	44	4	14	*SP
JENA	15.37	332.1	3	32	0	6	20	0			4	52	
HEIDELBERG	15.44	323.1	3	32	-1						4	12	
BESANCON	15.60	312.5	3	35	0	6	20	-5					
HALLE	15.71	334.0	3	37	0	6	37	9					
CLERMONT-FD.	16.72	304.6	3	48	-1	6	52	1					
TIFLIS	17.28	70.1	4	0A	4	7	17	14					
GARCHY	17.36	309.3	3	56	-1	7	4	-1					
TORTOSA	17.58	286.8	3	57	-3	7	9	-1					
DOURBES	17.94	319.0	4	5	1	7	17	-1					
GORIS	18.37	77.5	4	11	2	7	39	12					
ALICANTE	18.40	278.9	4	11	2	7	30	2			4	24	PP
PARIS	18.41	313.1	4	10K	1	7	29	1					
UCCLE	18.49	320.5	4	11	1	7	34	4					

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WITTEVEEN	18.78	328.2	4	15K	1							
DE BILT	18.92	324.6	4	16K	1							
KARLSKRONA	18.99	347.4	4	13A	-3	7	41	0				
COPENHAGEN	19.20	341.8	4	19K	1	7	47	2				
FOLINIERE	20.15	310.4	4	27	-1							
ALMERIA	20.18	275.0	4	27A	-2	8	2	-3			4	51 PP
MOSCOW	20.48	24.3	4	29A	-3	8	11	0			5	7 PPP
GRANADA	21.01	276.4	4	39K	2	8	28	7			4	58 PP
TOLEDO	21.06	284.0	4	37A	-1	8	24	3			5	0 PP
GOTEBORG	21.15	343.6	4	38A	0	8	14	-9			7	37
JERSEY	21.29	310.2	4	40	0	8	27	1				
KEW	21.30	317.3	4	40K	0	8	27	1	5	56	8	53 *SS
MALAGA	21.73	275.5	4	39K	-5	8	30	-4				
BENI ABBES	22.13	257.1	4	48	0	8	41	0				
UPPSALA	22.30	353.0	4	49K	-1	8	42	-2	5	13	5	27 PP
HELSINKI	22.41	2.7	4	51	0						12	4
PULKOVO	22.48	9.8	4	52	0	8	49	2	5	17	5	31 PPP
NURMIJARVI	22.74	2.3	4	53	-1	8	44	-8				
TEHERAN	22.88	86.5	4	58A	3	9	2	8				
DURHAM	23.75	323.4	5	5	1	9	18	9	5	32	5	40 PP
COIMBRA	24.39	285.4	5	11A	1	9	21	1	5	38	10	2 *SS
SERRA PILAR	24.47	287.7	5	12K	1	9	26	5	5	38	5	56 PP
LISBON	25.11	282.0	5	17A	0	9	34	2	5	42	6	36 PP
BERGEN	25.20	339.4	5	18	0	9	32	-1			5	43 PP
ABERDEEN	25.44	327.6	5	20	0	9	49	12			5	54 PP
SHIRAZ	25.87	99.5	5	25A	1	9	49	4				
KAJAANI	26.45	4.8	5	29A	0							
SKALSTUGAN	26.58	349.4	5	30A	-1	9	55	-1				
ASHKABAD	27.88	78.7	5	42	0						12	10 SSS
SODANKYLA	29.67	2.9	5	58A	0	10	44	-2				
KIRUNA	30.09	358.1	6	1A	-1	10	44	-8			6	55 PP
APATITY	30.36	8.0	6	4A	-1	10	53	-4	6	32	11	38
SVERDLOVSK	31.31	40.3	6	12K	-1							
TROMSOE	31.94	357.4	6	17	-1							
KEVO	32.08	2.7	6	19	0							
TASHKENT	35.60	69.5	6	49A	-1	12	18	0	7	17	8	13 PP
SIDA	35.63	330.0	6	51	1	12	51	32				
QUETTA	37.04	88.5	7	1A	-1	12	39	-1			8	19 PP
REYKJAVIK	37.32	329.3	7	6A	2	12	49	5			7	43
PONTA DELGDA	38.04	285.3	7	15K	5	13	1	6	7	40	15	58 SS
ANGRA DO HO.	38.98	287.2				13	16	7	7	53		
WARSAK DAM	39.24	80.4	7	19A	-1							
SCORESBY SD.	40.20	338.5	7	31	3	13	32	4				
LWIRO	40.24	170.8	7	29	1	13	29	1				
ALMATA-2	41.14	64.6	7	36K	0							
SEMIPALATNSK	42.05	53.6	7	46	3							
MBOUR	42.29	247.4	7	45	0	13	58	-1				
LAHORE	42.32	82.5	7	43	-2							
KHEYS	44.88	7.7	8	8A	2	14	35	-1				
DEHRA DUN	45.74	82.3	8	14	1	15	4	16			10	6 PP
NEW DELHI	45.82	84.9	8	12A	-2	14	45	-4	8	38	10	5 PP
NORD	46.07	352.5	8	15A	-1	14	50	-3				
BOMBAY	47.21	99.2	8	26	1	15	9	0			10	18 PP
LUANDA	47.30	193.0	8	26	1	15	8	-2	8	52	10	22 PP
POONA	48.23	98.9	8	32A	0	15	25	2			10	27 PP
SEHORE	48.29	91.5	8	32	-1	15	25	1			10	27 PP
ALERT	52.13	350.4	9	2A	0	16	18	1	9	38		
BROKEN HILL	52.26	173.2	9	4	1							
HYDERABAD	52.45	96.8	9	0	-5	16	16	-6			11	3 PP
BANDEIRA	53.21	191.6	9	10A	0	16	30	-2	9	38	9	52 *SP
ESEN BULAK	53.29	55.8	9	0A	-11	16	32	-1				
CHATRA	54.46	81.6	9	19A	0	16	46	-3			11	13 PP
BOKARO	54.86	85.5	9	22A	0	16	51	-3			11	20 PP
KODAIKANAL	55.97	104.6	9	30A	0	17	11	2			11	36 PP
VISHAKHAPTNM	56.12	93.3	9	32K	1	17	11	0			11	41 PP
LHASA	56.15	76.6	9	32A	0	17	11	0				
IRKUTSK	56.34	46.9	9	32A	-1	17	10	-4				
MADRAS	56.38	100.0	9	31A	-2	17	11	-4			11	39 PP
CALCUTTA	57.55	85.4	9	38	-3	17	23	-7			16	51
BULAWAYO	57.90	173.7	9	43K	-1							
SHILLONG	58.75	80.4	9	47A	-3							
ULAN-BATOR	59.50	50.9	9	55A	0	17	55	0				
SCHEFFERVLLE	59.96	318.0	9	58A	0	18	1	0				
CHITTAGONG	60.36	83.6	10	0A	-1	18	6	0	9	25	12	12 PP
TOCKLAI	60.42	77.7	9	59	-2							
RESOLUTE	60.63	344.3	10	2A	-1							
TANANARIVE	61.02	153.2	10	7A	2	18	19	4			39	32 PKPPKP
HALIFAX	62.48	306.5	10	15A	0							

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

LANCHOW	62.69	64.2	10	15A	-2	18	35	-1	10	44	12	25	PP											
MOULD BAY	63.71	350.6	10	23A	0	18	44	-4																
CHANGALANE	64.37	170.7	10	27A	-1	19	2	5																
YAKUTSK	64.51	30.0	10	26A	-2	18	53	-5	10	57														
PAOTOW	64.80	57.2	10	29A	-1	18	59	-3	11	2	12	55	PP											
KIMBERLEY	66.25	178.2	10	39A	-1																			
PORT BLAIR	67.03	92.9	10	25A	-20	19	8	-21			12	52	PP											
SIAN	67.20	63.7	10	44A	-2	19	31	0	11	13														
KUNMING	67.40	75.1	10	45A	-2	19	30	-3																
PIETERMZBURG	67.46	172.9	10	48	1																			
BREBEUF	68.23	311.2	10	52A	0	19	45	2	11	14	13	30	PP											
WESTON	68.47	307.4	10	54	1	19	45	-1																
PEKING	69.12	55.1	10	56A	-1	19	51	-3	11	21	13	29	PP											
BERMUDA	69.28	295.3	10	57	-1	20	0	4																
PALISADES	70.84	307.3	11	9A	1	20	15	1	11	38														
FORDHAM	70.91	307.1	11	8	0	20	16	1																
HERMANUS	71.96	183.2	11	17	2	20	28	1			15	25	PPP											
CHANGCHUN	72.65	47.8	11	18	-1	20	31	-4																
PENNSYLVANIA	73.43	308.9	11	24A	1																			
MAGADAN	73.88	24.7	11	25A	-1	20	47	-1																
WASHINGTON	74.04	306.9	11	28K	1	21	10	20	12	4														
LONDON ONT.	74.09	312.3	11	27K	0																			
CLEVELAND	75.24	311.2	11	35A	1	21	4	1																
NANKING	75.31	60.8	11	33A	-1	21	1	-3																
MORGANTOWN	75.41	308.9	11	37A	2	21	10	5																
ST. CLAUDE	76.15	279.6	11	41	2	21	18	5																
ST. KITTS	76.20	281.3	11	40	1																			
FORT FRANCE	76.48	278.2	11	44	3	21	23	6																
CANTON	76.56	71.2	11	41A	0	21	15	-3																
COLLEGE	77.38	356.0	11	45A	-1	21	28	1			38	32	PKPPKP											
ZO-SE	77.53	60.4	11	45A	-1	21	23	-5																
HONG KONG	77.64	71.4	11	47A	0	21	29	-1	12	16	14	48	PP											
SAN JUAN	78.21	284.1	11	49	-1	21	37	1	12	22														
CHICAGO JSA.	78.53	314.5	11	52	0																			
TRINIDAD	79.08	275.0	11	57	2						21	46												
COLUMBIA	79.54	304.9	12	2A	5	21	51	1																
BLOOMINGTON	79.63	311.8	11	58	0	21	52	1																
DUBUQUE	79.81	316.5	11	59A	0	21	48	-5																
PETROPAVLOVK	81.73	25.2	12	6	-3				12	36	15	7	PP											
ILAN	81.74	65.2									20	24	PKP2											
FLORISSANT	82.15	313.6	12	12	1	22	17	0																
ST. LOUIS 1	82.17	313.4	12	12A	1	22	18	1																
CARACAS	83.52	278.2	12	19A	1	22	28	-2																
ROLLA	83.64	313.7	12	19A	0	22	28	-4																
SITKA	83.71	348.2	12	21K	2	22	32	0																
BANFF	84.18	335.2	12	24A	3																			
ABUYAMA	84.46	49.7	12	22A	-1																			
MIZUSAWA	84.70	43.5	12	24	0						19	8												
LAWRENCE	84.76	316.3	12	26	2																			
MATUSIRO	84.88	47.0	12	24	-1	22	39	-5																
RAPID CITY	85.00	324.2	12	26A	0																			
MANHATTEN	85.32	317.3	12	29	2	22	37	-11																
HUNGRY HORSE	86.04	332.8	12	32A	1	22	41	-14			32	15												
TUKUBASAN	86.19	46.1	12	30K	-1	22	39	-18			15	52	PP											
HOPE	86.49	290.0	12	33	0																			
PENTICTON	87.10	336.5	12	36A	0																			
BOZEMAN	87.13	329.6	12	38A	2	23	10	4	13	7	30	26	PKKP											
TULSA	87.25	314.5	12	37	0	23	10	3	13	5	22	52	SKS											
BUTTE	87.44	330.7	12	37A	0	23	11	3	13	6	30	26	PKKP											
MANILA	87.45	73.5	12	37	-1						24	3												
LARAMIE	88.26	323.8	12	43	2						23	19												
TANGERANG	88.81	98.7	12	42A	-2	23	19	-2																
VICTORIA	88.97	338.4	12	46	1																			
DJAKARTA	88.97	98.6	12	44	-1	23	23	0																
SEATTLE	89.41	337.3	12	48	1						23	9												
GOLDEN	89.42	322.7	12	47	0	23	6	-21																
WICHITA MTS.	89.68	315.4	12	49A	1	23	7	-22	13	17	16	29	PP											
GALERAZAMBA	89.83	283.4	12	57	8	23	38	7																
LEMBANG	89.99	98.6	12	49A	-1	23	8	-24																
LONGMIRE	90.06	336.6	12	48A	-2	23	1	-32																
FLAMING GRGE	90.30	325.9	12	32A	-19	23	5	-30																
SALT LAKE C.	91.50	327.3	12	57A	0	23	20	-25	13	27	30	15	PKKP											
FUQUENE	91.90	278.3	12	59	1	25	2	73			17	4	PP											
PRICE	92.00	326.0	12	58A	-1																			
LUBBOCK	92.33	316.6	13	1	1	25	11	78																
DUGWAY	92.38	327.6	13	2A	1																			
BOGOTA	92.69	277.9	13	4A	2	25	7	71			23	23	SKS											
CHINCHINA	93.68	279.1	13	5A	-2	23	26	-38			16	46	PP											

ALBUQUERQUE	93.69	320.5	13	8	1				16	52 PP
EUREKA	94.30	329.3	13	10A	1					
MINERAL	95.68	333.5	13	16A	0					
RENO	95.74	331.9	13	17A	1					
BOULDER CITY	96.78	326.7	13	21	0				17	40 PP
UKIAH	97.33	334.1	13	22A	-1				17	25 PP
CALISTOGA	97.54	333.4	13	25A	1					
TUCSON TELE.	97.89	321.8	13	27A	1					
TUCSON	98.02	321.8	13	27A	1				30	27 PKKP
BERKELEY	98.11	332.8	13	27A	0	23 56	2	13 46	17	28 PP
LICK	98.35	332.1	13	29A	1				14	26
PRIEST	99.04	330.9	13	32A	1					
PASADENA	99.77	328.1	13	36	2	24 3	0	14 15	17	47 PP
MAWSON	109.36	164.9	18	19A	777			18 51	14	21 P
MUNDARING	111.14	114.5	18	23K	1					
DARWIN	111.61	89.1	18	4	-19					
SANTA LUCIA	112.07	244.2	19	7	43	25 50	53	19 35	30	57 PS
KIPAPA	121.07	1.0	18	45	4					
HONOLULU	121.19	1.1	18	45	4				20	18 PP
PORT MORESBY	122.61	75.5	18	46	2				20	22
RABAUL	122.98	67.0							20	25
HAWAII V.OB.	123.03	357.9	18	48	3					
WILKES	123.06	151.2							36	58 SS
SOUTH POLE	127.63	180.0	18	53	-1					
CHARTERS TS.	128.16	86.7	18	35	-20				18	57
ADELAIDE	129.18	107.5	18	58A	1				22	9 PP
HONIARA	132.17	65.1	19	6	4					
DUMONT	134.74	150.1	18	54	-13				22	30 PP
TOOLANGI	135.21	108.1	18	56	-12				21	50 PP
BYRD STATION	135.29	188.7	18	59	-9				23	24 PP
BRISBANE	136.97	91.2	19	9	-2				22	0 PP
CANBERRA	137.14	103.7	19	0	-12				22	48 PKS
TARRALEAH	137.25	114.4	19	14	2					
MOORLANDS	137.80	114.4	19	12	-1					
RIVERVIEW	138.29	100.8	19	13A	-1	25 58	-15		22	8 PP
KOUMAC	142.47	73.7	19	18K	-3					
PORT VILA	143.74	66.1	19	23A	-1					
NOUMEA	145.12	74.2	19	28A	2				23	47
MACQUARIE I.	145.95	133.7	19	30K	3					
SUVA	150.98	54.3	19	50	15				23	24 PKS
APIA	152.75	32.5	19	49	11					
ROXBURGH	153.91	117.8	19	49	10				23	54 PP
KAIMATA	155.58	111.0	20	14	32				20	16 PKP2
GEBBIES PASS	156.43	114.0	20	3	20				20	15 PKP2
COBB RIVER	156.54	107.4							20	14 PKP2
TARATA	157.68	102.4							20	20 PKP2
WELLINGTON	158.08	107.9	19	45	0				20	21 PKP2
KARAPIRO	158.43	98.7	19	46	1				24	6 PP
TUAI	159.79	100.7	19	48	1				24	10 PP

AUGUST 28 22.H 46.M 22.S EPICENTRE -1.71 67.82 DEPTH= 210.KM

A= 0.37730 B= 0.92561 C=-0.02968 D= 0.9260 E=-0.3775
G=-0.0112 H=-0.0275 K=-0.9996 HT= 7.2

DEPTH OF FOCUS= 0.028R

SE= 1.87

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
POONA	20.97	16.2	4	27K	-1	8	37	33			4	53	PP
BOMBAY	21.06	13.3	4	26	-3	8	32	26			4	44	PP
HYDERABAD	21.72	28.4	4	32	-3	8	38	21			5	5	PP
VISHAKHAPTNM	24.60	37.7	5	4	1	9	42	36			6	8	PPP
QUETTA	31.72	358.6	6	8	2	11	16	17					
DEHRA DUN	33.31	16.2	6	20	0	11	47	23					
CHITTAGONG	33.48	43.0	6	23	2								
LAHORE	33.65	10.1	6	20	-3								
CHATRA	33.96	32.0	6	26A	0								
WARSAK DAM	35.69	5.3	6	41	1								
LHASA	38.27	33.7	7	3A	1								
TANGERANG	38.96	97.7	7	7	0								
LWIRO	39.00	268.5	7	9	1								
DJAKARTA	39.15	97.6	7	15	6								
LEMBANG	39.99	98.5	7	16A	0								
DUZHANBE	40.09	1.2	7	21	4								

TEHERAN	40.30	339.2	7 21	3	13	0	-10				
ASHKABAD	40.43	348.4	7 20	0							
VANNOVSKAYA	40.48	348.1	7 22	2							
BROKEN HILL	40.88	249.8	7 22	-1							
KIZYL-ARVAT	42.08	346.6	7 32A	-1	13	58	22				
ANDIJAN	42.46	5.1	7 37A	1	14	2	20				
NAMANGAN	42.63	4.3	7 38	1							
TASHKENT	42.85	1.6	7 40A	1	14	8	21				
KUNMING	43.07	49.4	7 41	0	14	7	17				
JERUSALEM	45.45	319.9	8 2	2							
GORIS	45.51	336.6	8 2A	2							
ALMATA-2	45.59	9.8	8 0K	-1							
KSARA	46.39	322.5	8 10	3						10	22
KIROVOBAD	46.50	337.4	8 8K	0							
MAKHACH-KALA	48.10	340.0	8 22	1							
BANGUI	49.54	277.2	8 32	1				8	42		
LANCHOW	50.37	38.2	8 37	-1	15	49	16				
CANTON	50.70	58.1	8 39	-1	15	55	17				
HONG KONG	51.11	59.4	8 44	1	16	1	18				
SIAN	52.60	43.3	8 55A	1	16	22	18				
SEMIPALATNSK	52.99	9.9	8 59	2							
SIMFEROPOL	55.28	331.4	9 14	0							
PAOTOW	57.00	37.6	9 25	-1	17	18	16				
SVERDLOVSK	58.64	355.4	9 34	-4							
NANKING	58.74	50.5	9 38A	0	17	45	20				
KISHINEV	59.34	330.0	9 42	0							
ZO-SE	60.23	52.5	9 48	0	17	59	15				
PEKING	60.59	41.2	9 51	0	18	7	19				
MOSCOW	62.34	341.3	10 3A	1							
DARWIN	63.28	102.9	10 5	-4							
LWOW	63.59	330.0	10 23	12							
MAWSON	65.85	182.1	10 24	-1							
BRATISLAVA	66.32	325.5	10 28	0						13	11 PP
LJUBLJANA	66.75	322.6	10 30	-1							
TRIESTE	67.03	321.9	10 32	-1							
PULKOVO	67.94	340.6	10 38	0	19	43	24				
CHANGCHUN	68.39	41.0	10 40	-1	19	45	21				
PRUHONICE	68.70	326.3	10 43A	0						13	17
KASPERSKE H.	68.82	325.1	10 43	-1						11	22
COLLMBERG	70.22	327.0	10 53A	1						13	34
JENA	70.82	326.1	10 56	0						12	26
HALLE	70.89	326.8	10 57	1				11	13		
STUTTGART	71.16	323.4	10 58	0							
KAJAANI	71.98	342.7	11 3	0							
UPPSALA	72.70	336.0	11 13A	6	20	32	19				
APATITY	73.18	346.9			20	4	-15				
GARCHY	74.42	320.3	11 19	2							
SODANKYLA	74.71	344.7	11 21	2							
PARIS	75.32	321.6	11 23	1							
MATUSIRO	75.37	51.6	11 23	1							
GRANADA	76.32	308.8	11 32A	4							
KIRUNA	76.74	343.3	11 31	1							
SKALSTUGAN	76.91	337.7	11 31	0							
YAKUTSK	78.70	25.1	11 42A	1							
DUMONT	81.43	157.5	11 53	-2							
SOUTH POLE	88.30	180.0	12 31	2							
COLLEGE	111.94	15.6	18 53	43							
CALISTOGA	142.03	13.3	19 18A	10							
EUREKA	142.25	4.8	19 12	4							
WICHITA MTS.	144.80	340.4	19 15	3						22	21 PP
GLEN CANYON	144.91	359.2	19 6	-6							
BOULDER CITY	145.82	3.8	19 19	5							
ALBUQUERQUE	146.51	351.5	19 20	5						19	50
LUBBOCK	146.85	344.1	19 22	6							
PASADENA	147.25	9.2	19 24	8						22	55

AUGUST 29 9.H 12.M 18.S EPICENTRE -1.86 68.00 DEPTH= 183.KM

A= 0.37434 B= 0.92673 C=-0.03221 D= 0.9272 E=-0.3745
G=-0.0121 H=-0.0299 K=-0.9995 HT= 7.2

DEPTH OF FOCUS= 0.024R

SE= 2.07

DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S

POONA	21.06	15.6	4	28K	-3	8	36	27		4	55 PP
BOMBAY	21.16	12.7	4	31	-1	8	35	24			
HYDERABAD	21.76	27.8	4	39	2	8	42	21		5	6 PP
TANANARIVE	26.25	228.4	5	20	0						
PORT BLAIR	28.00	60.7	5	53	17						
MEDAN	31.13	80.0	6	5	2						
CALCUTTA	31.34	38.2								11	6
NEW DELHI	31.52	15.6	7	4	57						
QUETTA	31.87	358.3	6	9	-1	11	24	18			
DEHRA DUN	33.40	15.9	6	23	0					10	41
CHITTAGONG	33.46	42.7	6	22	-1						
CHATRA	33.99	31.7	6	29	1						
SHIRAZ	34.65	335.9	6	31K	-3				8	7	
SHILLONG	35.74	38.7	6	41	-2						
WARSAK DAM	35.82	5.0	6	44	1						
LHASA	38.29	33.4	7	5A	1	13	4	20			
LWIRO	39.18	268.7	7	12	1						
LEMBANG	39.79	98.4	7	16A	-1						
TEHERAN	40.50	339.0	7	19	-3						
BROKEN HILL	41.00	250.1	7	25	-1						
BULAWAYO	42.54	241.9	7	37	-2						
KUNMING	43.03	49.2	7	44	1	14	13	19			
JERUSALEM	45.67	319.9	8	4	0						
KSARA	46.62	322.5	8	22	11					10	21 PP
KIMBERLEY	49.09	232.7	8	29	-1						
BANGUI	49.74	277.3	8	35	0					9	56 PCP
LANCHOW	50.37	38.0	8	39	-1	15	53	15			
CANTON	50.62	57.9	8	42A	0	16	0	19			
SIAN	52.58	43.1	8	56A	-1	16	23	15			
ESEN BULAK	54.12	23.8	9	8A	0	16	49	21			
PAOTOW	57.00	37.4	9	28A	-1	17	27	20			
NANKING	58.69	50.3	9	40A	0	17	45	16			
SOFIA	59.85	323.2	9	48	0					10	18 PCP
ULAN-BATOR	60.04	29.2	9	50A	0	17	50	4			
ZO-SE	60.18	52.3	9	50	-1	18	2	14			
PEKING	60.58	41.1	9	53	0	18	11	18			
DARWIN	63.07	102.9	10	10	0						
MAWSON	65.71	182.2	10	26A	-1						
BRATISLAVA	66.55	325.5	10	28	-4					13	17 PP
MIRNY	66.92	169.4	10	33	-2						
LJUBLJANA	66.98	322.5	10	32	-3					13	2 PP
TRIESTE	67.26	321.9	10	35	-2					13	4 PP
PADOVA	68.32	321.0								12	2
CHANGCHUN	68.38	40.9	10	41	-3	19	42	14			
PRUHONICE	68.92	326.2	10	45	-2					13	20
KASPERSKE H.	69.04	325.1	10	45	-3					13	20
CHIAVARI	69.48	319.1				18	35	-66		14	26 PPP
COLLMBERG	70.44	326.9	10	56A	0						
NURMIJARVI	70.63	338.9	10	57	0	20	10	15			
JENA	71.04	326.1	11	0	0						
HALLE	71.11	326.8	10	58	-2				11	5	
STUTTGART	71.39	323.4	11	0	-2						
KAJAANI	72.17	342.6	11	4	-2						
GARCHY	74.65	320.2	11	20	-1						
DOURBES	74.72	323.3	11	21	0						
SODANKYLA	74.90	344.6	11	23	1						
MATUSIRO	75.32	51.6	11	25	0	21	7	20			
KIRUNA	76.93	343.3	11	33	-1						
MALAGA	77.08	308.2	11	34K	0						
SKALSTUGAN	77.11	337.7	11	35	0						
CHARTERS TS.	78.33	110.0	11	43	2						
DUMONT	81.23	157.5	11	57	0						
SOUTH POLE	88.15	180.0	12	32	1						
SCOTT BASE	90.04	167.9	12	44	4						
FLAMING GRGE	141.04	356.9	19	39	30						
CALISTOGA	142.13	13.6	19	14K	4						
EUREKA	142.38	5.0	19	8	-3						
CHINCHINA	143.56	275.8	19	16	3						
PRIEST	144.96	12.3	19	20A	5						
WICHITA MTS.	145.00	340.6	19	18	3					22	33 PP
GLEN CANYON	145.06	359.4	19	19	3						
BOULDER CITY	145.95	4.1	19	22	5						
DALLAS	146.02	336.7	19	22	5						
ALBUQUERQUE	146.68	351.7	19	24	6					19	59
LUBBOCK	147.04	344.3	19	26	7						
PASADENA	147.36	9.5	19	28	9						
TUCSON TELE.	149.66	357.9	19	33	10						
TUCSON	149.75	358.0	19	33	10						

AUGUST 29 20.H 20.M 17.S EPICENTRE 34.02 139.39 DEPTH= 0.KM

A=-0.63052 B= 0.54070 C= 0.55685 D= 0.6510 E= 0.7591
G=-0.4227 H= 0.3625 K=-0.8306 HT= 0.5

SE= 3.18

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
OSIMA	0.75	359.6	0	13A	-4	0	23	-7				
MERA	0.97	22.1	0	18	-3	0	30	-5				
HATIDYOZIMA	0.98	159.6	0	21	0	0	35	0				
AJIRO	1.06	347.2	0	19	-3	0	32	-5				
OMAESAKI	1.13	301.4	0	22K	-1	0	38	-1				
MISIMA	1.16	342.0	0	21	-2	0	36	-4				
SHIZUOKA	1.25	319.7	0	25	0	0	43	1				
YOKOHAMA	1.43	8.7	0	26A	-1	0	44	-3				
HAMAMATU	1.55	297.4	0	26A	-3	0	47	-3				
HUNATU	1.56	341.3	0	29	0	0	48	-2				
TOKYO C.M.O.	1.69	10.1	0	29	-2	0	49	-4				
HONGO	1.72	10.5	0	30	-1	0	51	-3			1	43
KOHU	1.78	337.8	0	31	-1	0	54	-2				
IIDA	1.97	319.9	0	35K	0	1	0	-1				
TITIBU	1.97	352.8	0	36	1	1	0	-1				
TYOSI	2.08	34.9	0	35	-1	1	0	-4				
KUMAGAYA	2.13	359.9	0	37	0	1	4	-1				
TUKUBASAN	2.27	14.7	0	36A	-3							
NAGOYA	2.30	300.7	0	38	-2							
KAKIOKA	2.30	16.2	0	38	-2	1	6	-3				
MAEBASI	2.39	353.9	0	40K	-1	1	11	0				
OIWAKE	2.41	343.7	0	43	2	1	14	2				
TU	2.47	286.8	0	37	-5							
MATUMOTO	2.51	332.9	0	44	1	1	8	-6				
MITO	2.52	20.3	0	44	1	1	14	-1				
KAMEYAMA	2.55	289.8	0	42	-1	1	12	-3				
UTUNOMIYA	2.56	8.8	0	41	-2	1	9	-7				
GIHU	2.56	303.4	0	42	-1	1	12	-4				
OWASE	2.65	272.0	0	46	1	1	12	-6				
MATUSIRO	2.69	339.4	0	47	2	1	19	0				
TAKAYAMA	2.76	321.1	0	46	0	1	24	3				
NAGANO	2.82	340.2	0	51	4	1	27	5				
HIKONE	2.87	296.7	0	48	0	1	21	-3				
NARA	3.02	283.7	0	49	-1							
SHIRAKAWA	3.17	12.2	0	50	-2	1	26	-5				
ONAHAMA	3.18	22.5	0	51	-1	1	27	-4				
TSURUGA	3.18	301.8	0	49	-3	1	31	0				
KYOTO	3.18	289.4	0	50	-2	1	28	-3				
TAKADA	3.21	343.6	0	52	-1	2	33	61				
TOYAMA	3.22	326.9	0	59	6	1	43	11				
OSAKA	3.25	282.3	0	53	0	1	44	11			1	30
ABUYAMA	3.27	286.2	0	50K	-3							
HUKUI	3.29	309.0	0	53	-1							
KANAZAWA	3.36	319.0	1	2	7	1	48	12				
KOBE	3.54	281.9	0	55	-2	1	36	-5				
SUMOTO	3.72	276.2	0	58	-2	1	40	-5				
HUKUSIMA	3.83	13.0	0	59	-2	1	48	1				
NIIGATA	3.90	356.1	1	14	12	1	51	1				
WAZIMA	3.92	329.6	1	13	10							
TOKUSIMA	3.99	272.1	1	3	-1	1	48	-4				
TOYOOKA	4.05	293.2	0	58	-7							
AIKAWA	4.10	347.4	1	5	0	2	5	10				
YAMAGATA	4.30	10.2	1	7	-1							
MUROTO	4.41	261.4	1	9	-1	2	8	6				
SENDAI	4.42	15.7	1	12	2	2	2	-1				
TOTTORI	4.54	290.6	1	12	1							
ISINOMAKI	4.67	19.0	1	10	-3	2	4	-5				
SAKATA	4.89	4.1	1	16	0							
KOTI	4.90	266.2	1	17	0	2	21	6				
YONAGO	5.17	287.5									2	9
MIZUSAWA	5.29	14.9	1	20	-2	2	23	-2				
MATSUE	5.39	287.1	1	26	2	2	26	-1				
SAIGO	5.42	295.4									1	44
MATUYAMA	5.49	270.0	1	29	4	2	58	28				
AKITA	5.72	5.5				3	14	38			2	3
MORIOKA	5.85	13.6	1	30	0							
MIYAKO	5.99	19.5	1	41	9							
HAMADA	6.11	280.3	1	33K	-1	2	41	-4				
OOITA	6.53	265.2	1	41	1	3	38	42				
HATINOHE	6.72	14.1									2	26

AOMORI	6.88	8.9	1	54	9					
MIYAZAKI	7.01	254.8	1	48	2	4	9	61		
KUMAMOTO	7.36	263.1	1	48	-3					
HUKUOKA	7.51	269.2				4	1	41	2	51
KAGOSIMA	7.83	254.3	1	59	1	3	37	9		
NAGASAKI	8.05	263.5	2	0	-1	4	15	41		
YAKUSIMA	8.32	247.1	2	5	0					
ZO-SE	15.63	264.3	3	45	2					
NANKING	17.39	269.3	4	8	3					
PEKING	19.46	294.7	4	32	1	8	15	10		
HONG KONG	25.04	248.8				9	49	0		
SIAN	25.18	279.2	5	35	7					
LANCHOW	29.09	284.2	6	2	-2					
COLLEGE	52.52	30.9	9	15	-2					
CHARTERS TS.	54.20	172.0	9	29	0					
QUETTA	60.29	288.1	10	9	-4	18	7	-19		
ALERT	63.23	3.1	10	30	-2					
RESOLUTE	65.93	13.7	10	51A	1					
KAJAANI	68.57	334.0	11	2	-5				11	48
KIRUNA	68.74	339.1	11	3	-5					
PENTICTON	71.49	42.6	11	21	-3					
SHIRAZ	71.72	293.7	11	23A	-3				12	2
NURMIJARVI	71.82	331.8	11	27	1				12	9
HELSINKI	71.90	331.4	11	29	2					
SKALSTUGAN	74.11	338.2	11	34	-6					
HUNGRY HORSE	75.13	41.4	11	45	-1					
BUTTE	77.28	42.8	12	0	2					
BOZEMAN	78.35	42.4	12	6	2					
EUREKA	79.04	49.7	12	8	1					
WOODY	79.29	54.2	12	8	-1					
DUGWAY	80.59	47.7	12	16K	0					
COLLMBERG	82.87	329.4	12	23	-5				13	12
PRUHONICE	83.17	327.7	12	28	-1					
BRATISLAVA	83.30	325.3	12	29	-1					
JENA	83.74	329.8	12	34	2				12	55
KASPERSKE H.	84.22	327.6	12	32	-3				13	51
GOLDEN	85.36	44.4	12	43	3					
STUTTGART	86.36	329.5	12	48	3					
ALBUQUERQUE	87.80	48.6	12	55	3					
WICHITA MTS.	92.70	44.4	13	16	1				13	40

AUGUST 29 22.H 36.M 51.S EPICENTRE 34.12 139.38 DEPTH= 0.KM

A=-0.62973 B= 0.54014 C= 0.55829 D= 0.6510 E= 0.7590
G=-0.4238 H= 0.3635 K=-0.8296 HT= 0.4

SE= 2.96

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
NAGATURO	0.65	317.9	0	13K	-3	0	32	5				
OSIMA	0.65	0.0	0	13K	-3	0	22	-5				
MERA	0.88	24.8	0	18A	-1	0	30	-3				
AJIRO	0.96	346.2	0	18K	-2	0	31	-4				
MISIMA	1.06	340.6	0	19K	-2	0	34	-3				
HATIDYOZIMA	1.07	161.2	0	22	0	0	38	1				
OMAESAKI	1.07	297.0	0	22K	0	0	38	1				
SHIZUOKA	1.17	316.7	0	25K	2	0	42	2				
YOKOHAMA	1.33	9.6	0	25A	0	0	43	-1				
HUNATU	1.47	340.2	0	27	0	0	46	-1				
HAMAMATU	1.50	294.1	0	26K	-2	0	46	-2				
TOKYO C.M.O.	1.59	11.0	0	29A	0	0	49	-2				
HONGO	1.62	11.3	0	29	0	0	50	-1				
KOHU	1.69	336.7	0	30K	0	0	52	-1				
TITIBU	1.87	352.6	0	34	1	0	58	0				
IIDA	1.89	318.1	0	33K	0	0	58	0				
TYOSI	2.00	36.7	0	34A	-1	1	0	-1				
KUMAGAYA	2.03	0.0	0	37K	2	0	59	-3				
TUKUBASAN	2.18	15.5	0	35K	-2	1	3	-3				
KAKIOKA	2.21	17.1	0	36K	-2	1	6	0				
NAGOYA	2.25	298.5	0	38K	0	1	6	-1				
MAEBASI	2.29	353.7	0	37	-2	1	9	1				
OIWAKE	2.31	343.1	0	41	2	1	13	4				
MATUMOTO	2.42	331.9	0	42K	1	1	17	5				
MITO	2.43	21.3	0	40K	-1	1	10	-2				
TU	2.43	284.6	0	41	0	1	8	-4				
UTUNOMIYA	2.46	9.2	0	40A	-1	1	10	-3				

GIHU	2.50	301.5	0	42K	0	1	13	-1	
KAMEYAMA	2.51	287.7	0	43	1	1	11	-3	
MATUSIRO	2.60	338.8	0	43K	0	1	20	4	
OWASE	2.64	269.9	0	35	-9	1	10	-7	
TAKAYAMA	2.68	319.9	0	45	0	1	26	8	
NAGANO	2.72	339.6	1	46K	61	2	21	62	
HIKONE	2.82	294.9	0	49	2	1	20	-2	
NARA	2.99	281.8	0	49	0	1	24	-2	
SHIRAKAWA	3.07	12.6	0	49	-1	1	25	-3	
SIOMISAKI	3.08	258.5	0	49	-1	1	23	-5	
ONAHAMA	3.09	23.3	0	50K	0	1	29	0	
TAKADA	3.12	343.1	0	53	2	1	33	4	
TSURUGA	3.12	300.3	0	50	-1	1	30	1	
TOYAMA	3.13	326.0	0	52K	1	1	41	11	
KYOTO	3.14	287.7	0	51A	0	1	24	-6	
HUKUI	3.22	307.6							7 56
OSAKA	3.23	280.6	0	52	0	1	37	5	1 28
ABUYAMA	3.23	284.5	0	51	-2				
KANAZAWA	3.28	317.9	1	0	7	1	46	12	
WAKAYAMA	3.49	273.0	0	56	0	1	36	-3	
KOBE	3.52	280.4	0	55	-2	1	34	-6	
MAIZURU	3.55	293.5	0	59	2	1	34	-6	
SUMOTO	3.71	274.7	0	59	0	1	40	-4	
HUKUSIMA	3.73	13.4	0	59K	-1	1	57	12	
NIIGATA	3.80	356.1	1	4A	3	1	53	6	
WAZIMA	3.83	328.9	1	7	6	1	59	12	
TOKUSIMA	3.98	270.7	1	4	1	1	51	0	
AIKAWA	4.00	347.1	1	4	1	1	53	1	
TOYOOKA	4.01	291.9	1	0	-4	1	46	-6	
HIMEJI	4.14	276.7	1	0	-5	1	44	-11	
YAMAGATA	4.20	10.5	1	6	0	1	56	-1	
SENDAI	4.32	16.1	1	8K	0	1	47	-13	2 8
MUROTO	4.42	260.2	1	8	-1	2	8	6	
TOTTORI	4.50	289.5	1	15	5	2	25	21	
ISINOMAKI	4.58	19.5	1	10K	-2	2	3	-3	
SAKATA	4.79	4.2	1	15	0	2	14	2	
KOTI	4.90	265.0	1	15	-1	2	10	-5	
YONAGO	5.13	286.5	1	21	2	2	18	-2	
MIZUSAWA	5.20	15.2	1	21	1	2	17	-5	
MATSUE	5.36	286.1	1	24	1				3 22
SAIGO	5.37	294.5	1	33	10	2	47	21	
MATUYAMA	5.49	269.0	1	25	0	3	6	37	
ASHIZURI	5.51	257.1	1	24	-1	2	32	2	
AKITA	5.62	5.7	1	30	4	2	33	0	
MORIOKA	5.75	13.9	1	28	0	2	42	6	
UWAZIMA	5.76	263.1	1	24	-4	2	40	4	
MIYAKO	5.90	19.8	1	28	-2				
HAMADA	6.09	279.4	1	33K	0	2	40	-4	3 36
OOITA	6.53	264.4	1	43	4	3	3	8	
HATINOHE	6.63	14.4	1	43	2	2	50	-8	
AOMORI	6.78	9.0	1	47	4	3	10	8	
SIMONOSEKI	7.02	271.0	1	37	-9				
MIYAZAKI	7.03	254.0	1	46	0	4	9	61	
ASOSAN	7.05	262.4	1	46	0				
KUMAMOTO	7.37	262.3	1	48	-3	3	27	11	
HUKUOKA	7.51	268.4	1	55	2	3	27	7	
SAGA	7.62	266.0	1	53	-1	3	50	27	
HAKODATE	7.76	7.7	2	2	6	3	23	-3	
KAGOSIMA	7.85	253.6	1	58K	0	3	32	4	
MORI	8.02	6.4	2	21	21	3	51	18	
NAGASAKI	8.06	262.8	1	58	-3	3	47	13	
MURORAN	8.29	8.3							3 19
YAKUSIMA	8.36	246.5	2	3	-2				
ITUHARA	8.37	273.4	2	7	2	4	0	19	
URAKAWA	8.45	17.5	2	2	-4	3	34	-9	
TOMAKOMAI	8.67	10.8							4 17
SUTTSU	8.70	4.1	2	12	3				4 44
HIROO	8.72	19.7	2	5	-5	3	42	-8	
HUKUE	8.93	263.8	2	15	2	4	31	36	
SAPPORO	9.07	9.2	2	13	-2	4	3	4	
OBIHIRO	9.28	17.7	2	15	-3				
KUSIRO	9.68	22.5	2	20	-3	4	0	-14	
ASAHIGAWA	9.92	12.7	2	21K	-5	4	21	1	
NEMURO	10.39	25.9	2	29	-4	4	17	-14	
ABASHIRI	10.59	19.6							3 9
WAKKANAI	11.43	8.2							5 22
ZO-SE	15.63	263.9	3	41A	-2				
NANKING	17.38	268.9	4	12A	7	7	10	-8	

PEKING	19.41	294.4	4	32	2	8	5	1				
PETROPAVLOVK	23.36	30.2	5	11	1						5	53 PPP
PAOTOW	24.14	294.1	5	22	4	9	38	4				
HONG KONG	25.07	248.6	5	22	-5	9	42	-8				
SIAN	25.16	279.0	5	27A	-1	9	46	-5				
CANTON	25.29	251.1	5	25	-4							
MAGADAN	26.54	13.0	5	38	-3							
ULAN-BATOR	27.89	309.4	5	53	0	10	37	1				
YAKUTSK	28.59	350.5	5	57	-2							
LANCHOW	29.06	284.1	6	1	-3	10	45	-10				
CHENGTU	29.97	273.3	6	9	-3	11	6	-3				
KUNMING	32.95	264.1	6	36	-2	11	51	-5				
ESEN BULAK	34.71	303.8	6	53	0	12	23	0				
RABAUL	39.98	159.9	7	21	-16						18	41
LHASA	40.99	277.5	7	47	1	13	56	-3				
SHILLONG	41.77	271.3	7	50	-2							
CHITTAGONG	43.16	267.1	8	3	-1	14	29	-2	8	14	9	45 PP
PORT MORESBY	43.90	168.9	8	11A	1							
CHATRA	45.18	275.4	8	23	3							
SEMIPALATNSK	45.46	309.6	8	14	-8						15	4 PS
CALCUTTA	45.95	269.3	8	45	19							
HONIARA	47.51	152.0	8	42	4						19	15 SS
BOKARO	47.52	272.3									15	54
PORT BLAIR	47.93	253.7									15	32
DEHRA DUN	51.35	283.7	9	7	-1	16	23	-4				
COLLEGE	52.44	31.0	9	15	-1	16	40	-2				
NEW DELHI	52.68	282.0	9	15K	-3	16	39	-6			20	21 SS
LAHORE	53.88	286.6	9	33	6							
KHOROG	54.05	294.5	9	33	5	17	4	0				
CHARTERS TS.	54.30	172.0	9	27	-3							
TASHKENT	54.55	299.6	9	33A	1						17	10
WARSAK DAM	55.19	290.4	9	39	3							
HONOLULU	56.04	85.9				17	35	5			19	23
KIPAPA	56.05	85.7	9	54	12							
SVERDLOVSK	56.27	319.6	9	42	-2	17	26	-7				
MADRAS	57.39	263.6									17	58
HAWAII V.OB.	59.26	86.4	9	57	-8						24	17
SITKA	59.69	39.1	10	7	-1							
QUETTA	60.26	288.1	10	10K	-2	18	23	-2			12	24 PP
BOMBAY	60.51	273.7									18	29
BRISBANE	62.48	166.6	10	27	0	19	3	9				
ALERT	63.13	3.1	10	29	-2	18	59	-3				
ASHKABAD	63.63	299.4	10	38	3						19	32 PS
APATITY	64.66	335.9	10	40	-1	19	14	-7			11	10 PCP
KEVO	65.57	339.3	10	49	2							
RESOLUTE	65.83	13.7	10	47K	-2							
TROMSOE	67.93	341.0	10	59	-3							
KAJAANI	68.48	334.0	11	2	-4						11	24
MOSCOW	68.60	323.5	11	7K	1						11	35 PCP
KIRUNA	68.65	339.1	11	4	-3	20	6	-3				
TEHERAN	69.61	299.8				20	23	2			12	29
CANBERRA	69.66	171.6	11	12	-1							
PULKOVO	69.85	329.4	11	18	4	20	20	-3			13	53 PP
TIFLIS	71.30	308.0	11	24	1						21	4 PS
GORIS	71.36	305.4	11	22	-1						20	40
PENTICTON	71.42	42.7	11	23	-1							
LONGMIRE	71.46	45.8	11	21A	-3							
TOOLANGI	71.55	174.9	11	23	-1							
SHIRAZ	71.68	293.7	11	23K	-2	20	40	-5	11	42	14	10 PP
NURMIJARVI	71.73	331.8	11	23	-2	20	41	-4				
HELSINKI	71.81	331.4	11	24	-2							
SKALSTUGAN	74.01	338.2	11	36	-3							
SCORESBY SD.	74.83	353.6	11	48	4							
UPPSALA	74.84	333.6	11	41	-3	21	7	-13				
MINERAL	74.89	51.4	11	43K	-1							
HUNGRY HORSE	75.05	41.4	11	44	-1							
CALISTOGA	75.15	53.3	11	45A	0							
BERKELEY	75.77	53.9	11	49A	v	21	29	-2			12	25 PCP
SIMFEROPOL	76.23	315.1	11	55	4	21	32	-4			14	49 PP
LICK	76.47	54.1	11	53K	0						12	19
RENO	76.49	51.4	11	54K	1							
BUTTE	77.21	42.8	11	57	v							
PRIEST	77.78	54.7	12	1K	1							
BOZEMAN	78.28	42.4	12	3	v							
GOTEBORG	78.44	334.2	12	9	5							
WARSAW	78.59	326.5	12	17	12	22	0	-1			22	21 SKS
LWOW	78.74	323.4	12	9	4	22	13	10				
EUREKA	78.98	49.7	12	7	0							
KAPAPIRO	79.17	151.6	12	8	0							

CHATEAU	80.27	152.3	12 19	5							
DUGWAY	80.53	47.7	12 15K	0							
TUAI	80.56	151.0	12 20	5							
PASADENA	80.58	55.2	12 22	7	22 28	6					
SALT LAKE C.	80.77	46.8	12 16	0							
RACIBORZ	81.36	326.1	12 19	0							
KSARA	81.49	305.1	12 23	3							
ISTANBUL KA.	81.51	314.2	12 22	2							
BOULDER CITY	81.75	52.1	12 21	0							
PRICE	82.11	47.2	12 24K	1							
FLAMING GRGE	82.14	45.5	12 23	0							
BUDAPEST	82.77	323.8	12 39	12					22 46		
COLLMBERG	82.78	329.4	12 24	-3							
PRAGUE	83.07	327.9	12 31	3					15 40	PP	
HALLE	83.07	330.0	12 41	13							
PRUHONICE	83.08	327.7	12 29	1	22 46	-2			15 42	PP	
JERUSALEM	83.12	303.7	12 27	-2							
BRATISLAVA	83.21	325.3	12 30	1					15 46	PP	
GLEN CANYON	83.24	49.7	12 29	0							
ABERDEEN	83.42	340.0			23 15	24			26 13		
JENA	83.66	329.8	12 33	2	22 45	-8			15 36	PP	
LARAMIE	84.11	43.3	12 33	-1							
KASPERSKE H.	84.14	327.6	12 32	-2					15 41	PP	
GOLDEN	85.29	44.4	12 40	1							
DURHAM	85.32	338.5	13 6	26	23 10	0					
ZAGREB	85.43	324.1							16 16		
LJUBLJANA	85.96	325.0	12 43	0					14 32		
STUTTGART	86.27	329.5	12 46	2	23 24	5					
TRIESTE	86.62	325.2	13 0	14	23 19	-3					
TUCSON	86.65	53.0	12 28	-18							
STRASBOURG	87.04	330.2			23 24	-3			29 9		
DOURBES	87.09	332.8	12 47	-1							
KEW	87.72	336.1			23 22	-11					
ALBUQUERQUE	87.74	48.6	12 52	1							
SCHEFFERVLLE	88.61	14.8	12 55	-1							
PARIS	88.94	333.1	13 0	3					13 20		
PAVIA	89.09	327.3			23 57	11			34 26		
FLORENCE X.	89.20	325.3	13 11	13	23 27	-20			28 57		
GARCHY	89.98	331.9	13 5	3					14 17		
ROME	90.01	323.3	13 16	3	23 43	-11			16 42	PP	
FOLINIERE	90.06	334.8	12 58	-4							
MANHATTEN	90.54	40.1	13 9	4							
DUBUQUE	91.03	34.5	13 14	7	23 45	-18					
MESSINA	91.15	319.1	13 7	-1	23 56	-8	13 20		16 44	PP	
WICHITA MTS.	92.63	44.4	13 13	-1	24 27	10			25 39	PS	
BREBEUF	95.31	22.6	13 30	3							
BLOOMINGTON	95.60	34.1			24 13	9					
TOLEDO	98.99	332.3			24 41	19			32 9	SS	
SOUTH POLE	123.94	180.0	18 58	-2							
BYRD STATION	125.28	167.9	19 1	-1					21 1	PP	

AUGUST 30 13.H 35.M 27.S EPICENTRE 41.93-111.55 DEPTH= 13.KM

A=-0.27409 B=-0.69406 C= 0.66570 D=-0.9301 E= 0.3673
G=-0.2445 H=-0.6192 K=-0.7462 HT= -2.4

SE= 2.81

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SALT LAKE C.	1.18	191.2	0	21	-2							
FLAMING GRGE	1.91	120.8	0	34	1							
DUGWAY	1.97	209.3	0	32K	-2							
PRICE	2.38	166.1	0	40K	0							
BOZEMAN	3.76	5.4	1	0	0							
BUTTE	4.16	350.1	1	7	2							
GLEN CANYON	4.95	180.4	1	16	-1							
GOLDEN	5.19	113.4	1	21	1	2	21	0				
BOULDER CITY	6.47	204.3	1	39	1							
RAPID CITY	6.49	67.8	1	39	1							
HUNGRY HORSE	6.66	345.6	1	39	-2							
RENO	6.71	251.9	1	39K	-2							
SPOKANE	7.11	326.7	1	49	2	3	47	38				
MINERAL	7.75	261.6	1	54A	-2							
ALBUQUERQUE	8.03	148.5	1	57	-3							
FRESNO	8.21	233.8	2	2K	0							

SHASTA	8.25	265.0	2	3K	0					
LONGMIRE	8.79	306.7	2	8	-2				5	24
CONCORD	8.99	247.4	2	13A	0					
LLANADA	9.00	237.0	2	14K	1					
LICK	9.03	242.8	2	12A	-2					
CALISTOGA	9.05	252.4	2	13A	-1					
PRIEST	9.14	233.8	2	15A	0					
BERKELEY	9.17	247.3	2	16A	0					
VINEYARD TE.	9.21	239.1	2	16A	0					
PENTICTON	9.30	325.4	2	18	1					
UKIAH	9.32	256.4	2	19	1					
BRANNER	9.35	244.7	2	17A	-1					
SAN FRANCSCO	9.35	247.2	2	18	0					
PASADENA	9.35	216.0	2	19	1	4	10	5		
PT. REYES	9.50	249.9	2	19A	-1					
SEATTLE	9.54	310.5	2	26	5	4	55	46		
TUCSON TELE.	9.59	175.8	2	22	1					
BANFF	9.64	344.8	2	23	1					
TUCSON	9.68	176.4	2	24	1					
PARAISO	10.09	239.9	2	19A	-9					
VICTORIA	10.65	312.3	2	39	3					
LUBBOCK	11.32	134.2	2	46	1					
MANHATTEN	11.71	98.5	2	49	-1					
WICHITA MTS.	12.46	121.1	2	59K	-1				3	52
LAWRENCE	12.76	98.0	3	2	-3					
TULSA	13.66	110.9	3	13	-3	5	45	-4	4	18 PG
DUBUQUE	15.47	80.8	3	37	-3					
ROLLA	15.60	98.4	3	39	-3					
ST. LOUIS 1	16.59	94.3	3	53	-1					
CHICAGO USA.	17.78	82.1	4	7	-2					
BLOOMINGTON	19.21	89.8	4	25	-2					
SITKA	21.45	323.0	4	48	-3				10	59
GUADALAJARA	22.30	159.3							11	49
CLEVELAND	22.37	81.0	5	0A	0	9	4	4	5	6
LONDON ONT.	22.37	76.9	5	0A	0					
TACUBAYA	24.79	151.2							13	12
PENNSYLVANIA	25.21	81.2	5	27	0					
CHAPEL HILL	25.89	92.6	5	33	-1					
VERA CRUZ	26.18	145.3	5	29	-7				10	33
WASHINGTON	26.32	85.0	5	36	-2				11	26
BREBEUF	27.48	69.6	5	46K	-2	10	29	2	6	36 PP
PALISADES	28.07	79.1	5	56A	2	10	34	-3		
FORDHAM	28.14	79.4	5	55	1				10	41
WESTON	29.64	75.4	6	8	0	10	59	-3		
COLLEGE	30.81	330.4	6	18	0	11	15	-5	19	55
SCHEFFERVLLE	31.84	50.6	6	26A	-1					
RESOLUTE	33.71	7.9	6	46K	2					
MOULD BAY	34.57	356.7	6	51K	0	12	23	4		
HALIFAX	34.62	69.0	6	52	1					
HOPE	38.04	118.2	7	11	-9					
HAWAII V.OR.	43.19	252.4	8	3	0					
ALERT	43.60	8.3	8	4	-2	14	43	8		
HONOLULU	44.03	256.9	8	11	1					
SAN JUAN	45.09	107.2	8	13	-5				10	6 PP
ST. KITTS	48.20	105.4	8	43	0					
CHINCHINA	48.75	129.0	8	48	1				10	48 PP
FUQUENE	49.47	126.6	8	49	-3					
NORD	49.52	11.1							19	50
ST. CLAUDE	49.81	105.8	8	56	1	16	4	1		
BOGOTA	49.94	127.6	8	55	-1	16	7	2		
CARACAS	49.99	115.6	8	55	-1	16	8	2		
SCORESBY SD.	51.04	25.6	9	3	-1					
FORT FRANCE	51.07	106.6	8	55	-10					
TRINIDAD	53.68	110.5	9	20	-4				21	41
TROMSOE	63.00	17.4	10	28	-1					
KIRUNA	64.76	18.2	10	38	-3	19	20	0		
ABERDEEN	64.98	34.5				19	39	17		
SKALSTUGAN	65.82	24.0	10	46	-2					
DURHAM	66.74	36.4	10	52	-2	19	45	1		
APATITY	67.67	13.8	10	57	-2	19	54	-1		
KEW	69.49	38.5	11	9	-2					
KAJAANI	69.54	17.8	11	9	-2					
GOTEBORG	70.11	28.4	11	3	-11					
UPPSALA	70.33	24.6	11	14K	-2					
FOLINIERE	71.23	40.7	11	20	-1					
DE BILT	71.52	35.5	11	23	0					
COPENHAGEN	71.80	29.6	11	21	-4					
NURMIJARVI	71.82	21.1	11	23K	-2	20	45	1		
SERRA PILAR	71.95	50.7	11	25K	-1					

HELSINKI	72.19	21.2	11	29	2						
KARLSKRONA	72.56	27.9	11	26	-3						
DOURBES	72.69	37.3	11	29	-1	20	58	4			
LISBON	73.18	53.0	11	32	-1						
HALLE	74.80	32.7	11	46	4				12	7	PCP
JENA	75.09	33.3	11	42	-2				12	3	
STRASBOURG	75.22	36.8	11	43	-2	21	53	31			
COLLMBERG	75.38	32.3	11	45	-1				14	29	
TOLEDO	75.38	49.3	11	45	-1	21	27	3	14	23	PP
BESANCON	75.38	38.6	11	42	-4						
BAGNERES	75.48	44.7	11	45	-1						
STUTTGART	75.75	35.9	11	47	-1						
PRAGUE	76.91	32.4	11	55	1						
PRUHONICE	77.02	32.4	11	54K	-1	21	45	3	15	12	PP
KASPERSKE H.	77.30	33.4	11	54	-2				12	53	
MALAGA	77.32	51.9	11	56K	-1				14	49	PP
GRANADA	77.47	51.1	11	54K	-3	21	49	2			
WARSAW	77.62	27.6	11	57	-1						
ALMERIA	78.35	50.7	12	1A	-1						
RACIBORZ	78.36	30.4				22	10	14	22	17	SCS
ALICANTE	78.44	48.5	12	14	11	22	0	3			
BRATISLAVA	79.48	32.1	12	8	0						
TRIESTE	80.10	35.5	12	11	-1						
LJUBLJANA	80.11	34.9	12	11K	-1						
FLORENCE X.	80.43	38.1	12	13	0						
ROME	82.46	38.6	12	25K	1				28	28	SS
BENI ABBES	83.23	55.4	12	26	-2				16	19	PP
BELGRADE	83.55	32.2	12	15K	-15				23	24	PS
SANTA LUCIA	83.89	146.6	12	30	-1						
ULAN-BATOR	84.29	335.1	12	34	1						
MESSINA	86.83	39.0	12	45	-1	23	21	-1	13	47	
ESEN BULAK	88.64	341.2	12	55	0						
ISTANBUL KA.	90.02	28.7	13	1	0						
KSARA	98.90	27.0	13	40	-2						
NEW DELHI	109.38	351.8	19	56K	777						
KIMBERLEY	142.42	83.8	19	20	-13						
WILKES	146.37	209.2	19	40A	0						
MIRNY	151.85	200.6	19	54	5						

AUGUST 30 17.H 17.M 58.S EPICENTRE -21.09-174.62 DEPTH= 77.KM

A=-0.92968 B=-0.08756 C=-0.35780 D=-0.0938 E= 0.9956
G= 0.3562 H= 0.0335 K=-0.9338 HT= 4.4

DEPTH OF FOCUS= 0.007R

SE= 2.80

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SUVA	7.18	292.9	2	0	16	3	35	30				
APIA	7.74	20.9	1	41	-11	3	0	-19				
PORT VILA	16.44	278.8	3	49K	2	7	10	24				
ONERAHI	17.52	211.1	4	2	2							
NOUMEA	17.63	262.6	4	3A	1	7	37	24				
KARAPIRO	18.81	204.8	4	13	-3							
TUAI	19.02	200.1	4	14	-4						7	24
KOUMAC	19.73	267.8	4	28A	2							
CHATEAU	19.93	202.9	4	26	-2						8	7
TARATA	20.36	205.2	4	36	4							
WELLINGTON	22.04	201.7	4	50	1	8	34	-8				
COBB RIVER	22.63	205.5	4	58	3							
KAIMATA	24.37	205.6	5	16	4							
GEBBIES PASS	24.91	202.3	5	18	1	9	36	4				
HONIARA	27.09	291.5	5	37	0	10	28	20				
ROXBURGH	27.67	204.8	5	45	3							
BRISBANE	30.32	251.6	6	3	-3	11	8	9				
RIVERVIEW	32.76	239.9	6	36	9						14	46
CANBERRA	34.84	238.1	6	43A	-2							
CHARTERS TS.	36.57	264.4	6	58	-2							
TOOLANGI	38.14	235.6	7	10	-3				7	21		
MOORLANDS	38.39	227.5	7	15	0							
PORT MORESBY	38.57	281.6	7	16A	-1	13	20	13				
TARRALEAH	38.84	228.0	7	16	-3							
ADELAIDE	43.07	241.0	7	51K	-3						17	51
HAWAII V.OB.	44.51	26.5	8	4	-1							
HONOLULU	45.12	22.0	8	10	0	14	50	7			18	12 SS

KIPAPA	45.26	22.0	8	10	-1					
CAPE HALLETT	51.96	185.8	9	3	0					
DARWIN	52.74	270.3	9	8	-1					
DUMONT	53.88	200.5	9	15	-2				9	55
SCOTT BASE	57.51	184.6	9	43	0					
MUNDARING	61.92	244.2	10	13	-1			10	22	
BYRD STATION	63.54	170.8	10	22	-2				11	18 PCP
WILKES	64.80	205.5	10	31A	-2	19	17 11			
SOUTH POLE	69.03	180.0	10	58	-1					
MIRNY	71.80	204.9	11	15	-1	20	36 7			
MATUSIRO	72.59	321.8	11	21	0	20	48 10			
LEMBANG	76.18	267.9	11	42K	1					
PRIEST	76.43	42.3	11	44K	1					
BERKELEY	76.55	40.1	11	43A	0	21	34 12		22	14
LICK	76.58	40.9	11	44A	0					
UKIAH	76.81	38.6	11	46	1					
PASADENA	76.82	45.2	11	44	-1	21	32 7			
CALISTOGA	76.86	39.3	11	45K	0					
PETROPAVLOVK	77.37	343.8	11	57	9	21	47 17			
MINERAL	78.55	38.5	11	54K	0					
RENO	79.09	40.1	11	58K	1					
UGLEGORSK	79.79	332.7	11	53	-8					
BOULDER CITY	80.11	45.4	12	4	1					
TUCSON	80.82	50.4	12	7	0					
EUREKA	81.41	41.9	12	11	1					
MAWSON	82.06	199.0	12	12A	-1					
LONGMIRE	82.63	33.5	12	13	-3					
NANKING	82.77	308.2	12	19	2					
GLEN CANYON	82.82	46.0	12	18	1					
SEATTLE	82.97	32.6	12	19	1					
VICTORIA	83.01	31.5	12	18	0					
DUGWAY	83.81	42.8	12	23K	1					
ALBUQUERQUE	85.34	49.9	12	30	0				13	13
PENTICTON	85.42	32.5	12	30A	0					
FLAMING GRGE	86.39	43.6	13	5	30					
BUTTE	87.23	38.0	12	39	0					
HUNGRY HORSE	87.75	35.6	12	40	-1					
BOZEMAN	87.92	38.9	12	42	0					
COLLEGE	88.14	11.1	12	43	0					
GOLDEN	88.42	46.2	12	45	1					
PEKING	88.55	314.1	12	47A	2					
BANFF	88.62	32.7	12	45	0					
SANTA LUCIA	89.56	125.8	12	54	4	23	26 -6		24	46 S
WICHITA MTS.	90.98	53.1	12	56	-1	23	56 11	13 6	30	22 PKKP
SIAN	91.11	306.3	13	0	3					
KUNMING	92.44	295.9	13	6	3					
YAKUTSK	93.85	337.0	13	9	-1					
MANHATTEN	94.29	49.7	13	12	0	24	56 42			
LANCHOW	95.65	306.3	13	20	2					
AREQUIPA	95.90	110.0	13	27	8					
ROLLA	97.20	52.3							25	47
ULAN-BATOR	98.01	318.3	13	29	0					
DUBUQUE	99.67	48.2				25	24 78			
BLOOMINGTON	101.62	52.5				25	35 79			
SHILLONG	101.84	292.9	13	47	1					
ESEN BULAK	104.39	314.4							15	45
CARACAS	110.11	86.2							18	49 PP
PALISADES	111.42	53.0	18	10	-15	25	10 11			
BREBEUF	112.31	48.3							35	2 SS
NEW DELHI	115.25	292.5	18	35A	3					
ALMATA	117.39	308.7	18	37	1					
WARSAK DAM	120.84	297.7	18	45	2					
TASHKENT	123.01	306.2	18	49	2	25	57 17			
QUETTA	124.33	292.8	18	52	2					
SVERDLOVSK	126.26	325.9	18	54K	6					
KIMBERLEY	127.03	201.4	18	58K	3					
APATITY	130.31	346.3							21	16 PP
TROMSOE	130.77	353.8	19	2	0					
VANNOVSKAYA	131.78	302.5	19	5	1					
KIRUNA	132.32	352.3	19	6	1				22	31 PKS
BULAWAYO	133.14	210.5	19	6	-1					
KAJAANI	134.51	346.5	19	9	0					
SHIRAZ	136.80	291.2	19	13	0	25	32 -42		22	48 PKS
SKALSTUGAN	137.28	355.5	19	7	-7					
TEHERAN	137.37	300.2	18	8	-67					
PULKOVO	137.48	341.6	19	17	2				22	51 PKS
MOSCOW	137.88	333.2	19	26	10				23	7 PP
BROKEN HILL	138.03	214.6	19	9	-7					

NURMIJARVI	138.34	345.8	19	19	3				22	2	PP
HELSINKI	138.57	345.3	19	19	2						
UPPSALA	140.31	350.3	19	28	8				23	18	PKS
GORIS	140.57	307.0	19	16	-4				22	25	PP
TIFLIS	141.01	310.9	19	24	3						
BANDEIRA	143.39	192.9	19	24K	-1	19	34				
KARLSKRONA	144.17	350.2	19	25	-2						
COPENHAGEN	145.06	353.0	19	39	11						
DURHAM	145.97	7.2	19	33A	3				41	49	SS
SIMFEROPOL	146.44	321.9	19	35	4						
WARSAW	146.64	342.5	19	34A	3				19	42	PKP2
LWOW	147.75	337.2	19	38	5						
WITTEVEEN	148.32	358.5	19	40	6						
KRAKOW	148.89	341.7	19	39	4				19	52	PKP2
DE BILT	149.05	0.2	19	41	6						
HALLE	149.22	352.0	19	36	1				23	27	PP
COLLMBERG	149.27	350.6	19	37	2				23	17	PP
RACIBORZ	149.35	343.7	19	39	4				19	49	PKP2
UZHGOROD	149.36	337.7	19	36	1						
JENA	149.83	352.2	19	37	1				23	14	PP
PRAGUE	150.21	348.2	19	46	9						
KSARA	150.23	301.7	19	40	3				23	21	PP
PRUHONICE	150.27	348.0	19	45	8				23	15	PKS
DOURBES	151.05	1.0	19	46	8	19	56				
KASPERSKE H.	151.27	348.8	19	46	8						
JERUSALEM	151.33	298.0	19	48A	10						
BRATISLAVA	151.39	343.5	19	40	2				21	22	PPP
BUDAPEST	151.46	340.4	19	41	3				21	6	
VIENNA-H.	151.50	344.5	19	48	10				20	57	
ISTANBUL KA.	151.73	320.1	19	41	2						
FOLINIERE	151.99	8.3	19	42	3						
STUTTGART	152.21	354.5	19	41	1				23	37	PP
PARIS	152.25	4.1	19	42	2				23	30	PP
STRASBOURG	152.51	356.6	19	42	2				20	25	
SOFIA	153.72	329.1	19	53	11				20	16	
GARCHY	153.81	3.6	19	52	10				20	2	PKP2
ZAGREB	153.85	343.0							20	0	
BESANCON	153.90	359.1	19	53	11						
LJUBLJANA	154.01	345.4	19	45	3				20	16	PKP2
TRIESTE	154.56	346.2	19	45	2				20	16	PKP2
CLERMONT-FD.	155.32	3.8	20	11	27						
PAVIA	155.78	353.5	19	43	-1				35	40	
FLORENCE X.	156.86	349.1	19	45	-1						
ATHENS	156.89	320.7	19	44	-2						
ROME	158.41	345.5	19	50	2				24	8	PP
BANGUI	158.99	219.6	19	50	1			19	59		
TOLEDO	159.61	21.2	20	30	41				24	2	PP
MESSINA	160.82	334.9	19	51	1				24	19	PP
GRANADA	162.17	24.0	20	5K	13	27	34 47		24	13	PP
MALAGA	162.25	26.6	19	53A	1				24	30	PP
ALMERIA	162.88	21.8	19	55K	2				24	32	PP
BENI ABBES	168.72	35.7	20	0	3				25	3	PP

AUGUST 31 10.H 33.M 52.S EPICENTRE -15.29-177.70 DEPTH= 235.KM

A=-0.96427 B=-0.03871 C=-0.26207 D=-0.0401 E= 0.9992
G= 0.2619 H= 0.0105 K=-0.9650 HT= 5.7

DEPTH OF FOCUS= 0.032R

SE= 3.34

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
SUVA	4.67	232.0	0	44	-28							
PORT VILA	13.62	257.8	2	59	-6							
NOUMEA	16.54	242.7	3	32	-8	6	51	15				
KOUMAC	17.92	250.4	3	51	-4							
ONERAHI	21.59	197.7	4	24	-8	8	40	29				
HONIARA	22.58	282.3	4	39	-3							
TARATA	24.80	194.8									10	26
BRISBANE	29.93	241.4	5	44	-5	10	46	18				
ROXBURGH	32.02	197.3	6	4	-3							
RIVERVIEW	33.62	231.0	6	24K	3	11	25	0			14	13
CHARTERS TS.	34.62	256.7	6	27	-2							
PORT MORESBY	34.80	275.5	6	31	0	12	8	25				
CANBERRA	35.86	230.0	6	35A	-4							

TOOLANGI	39.37	228.6	7	4	-5						7	26
HONOLULU	41.14	28.4	7	24	1	13	47	29			14	25
ADELAIDE	43.64	235.1	7	39	-4				7	56		
CAPE HALLETT	57.45	184.4	9	24	-3							
DUMONT	58.35	198.3	9	28	-5							
MUNDARING	61.93	241.7	9	59	2							
SCOTT BASE	63.06	183.7	10	2	-3							
MATUSIRO	66.24	322.2	10	24	-1	19	21	27				
WILKES	68.80	204.3	10	44	3	19	46	22				
BYRD STATION	69.71	170.9	10	43	-3							
LEMBANG	73.49	267.3	11	10	1							
BERKELEY	74.15	42.6	11	14A	1	20	44	19			21	20 SCS
LICK	74.27	43.4	11	15K	2							
PRIEST	74.27	44.9	11	15K	2							
CALISTOGA	74.38	41.8	11	17A	3							
SOUTH POLE	74.81	180.0	11	15	-2							
PASADENA	74.97	47.7	11	23	6	20	56	22				
MIRNY	75.82	204.4	11	18	-4							
MINERAL	75.98	40.8	11	23A	0							
RENO	76.67	42.3	11	26A	-1							
EUREKA	79.18	43.9	11	38	-3							
TUCSON	79.51	52.4	11	41	-1							
GLEN CANYON	81.02	47.8	11	50	0							
DUGWAY	81.65	44.5	11	52K	-2							
SALT LAKE C.	82.57	44.3	12	0	2							
COLLEGE	83.09	12.4	12	0	-1							
ALBUQUERQUE	83.94	51.5	12	5	0							
FLAMING GRGE	84.31	45.0	12	10	3						12	39
BUTTE	84.56	39.4	12	7	-1						15	19 PP
HUNGRY HORSE	84.82	36.9	12	7	-3							
BOZEMAN	85.33	40.2	12	14	2							
WICHITA MTS.	89.91	54.0	12	31	-3						24	8 SP
HUANCAYO	98.51	104.9									17	1 PP
BREBEUF	110.57	46.8									33	28 SS
SHIRAZ	131.80	296.2	18	50	4						19	44 PP
COLLMBERG	143.06	348.8	19	24	18							
PRUHONICE	144.00	346.5									22	25 PP
KSARA	144.54	307.5	19	14	5						21	52 PP
KASPERSKE H.	145.01	347.1	19	12	2						19	47
BRATISLAVA	145.01	342.6	19	5	-5							
DOURBES	145.23	357.4	19	14	4							
JERUSALEM	145.82	304.5	19	17	6							
STRASBOURG	146.50	353.4	19	22	10							
FOLINIERE	146.54	3.3	19	16	4							
PARIS	146.57	359.8	19	23	11						19	55
ZAGREB	147.47	342.1	19	42	28							
LJUBLJANA	147.67	344.0	19	20	6						19	41
BESANCON	147.99	355.3									19	42
BANDEIRA	148.09	200.4	19	20A	5							
GARCHY	148.10	359.0	19	20	5							
LWIRO	148.51	238.6	19	21	6							
CLERMONT-FD.	149.61	358.9	19	30	13							
PAVIA	149.65	350.4	19	4	-13						23	36
ROME	152.06	343.6	19	36	15	25	56	-7			20	16
MESSINA	154.35	335.3									21	13
MALAGA	157.84	14.4	20	8	40						24	36 PP
BANGUI	160.63	237.6	19	36	5						20	18

AUGUST 31 17.H 2.M 45.S EPICENTRE 51.32-179.75 DEPTH= 37.KM

A=-0.62750 B=-0.00275 C= 0.77861 D=-0.0044 E= 1.0000
G=-0.7786 H=-0.0034 K=-0.6275 HT= -5.9

DEPTH OF FOCUS= 0.001R

SE= 2.02

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PETROPAVLOVK	13.36	285.7	3	10A	1							
MAGADAN	18.49	307.9	4	16A	1							
COLLEGE	21.33	38.4	4	44K	-2	8	43	7				
KURILSK	22.27	266.9	4	56	1	9	2	9				
UGLEGORSK	24.36	279.8	5	17A	2						9	46
YAKUTSK	28.99	311.3	5	58A	0	10	43	-2				
MIZUSAWA	29.77	261.3	6	5	0	11	51	53				
TUKUBASAN	32.23	257.9	6	25K	-2	11	36	0	6	32	7	57 PPP

MATUSIRO	33.19	260.1	6	35	0	11	53	2		
VLADIVOSTOK	33.32	275.1	6	37A	1	11	57	4	7	40 PP
MOULD BAY	33.89	21.9	6	41A	0	12	23	21	9	19 PCP
KIPAPA	34.33	142.3	6	44	-1					
HONOLULU	34.41	142.5	6	46K	0	12	15	5	7	47 PP
VICTORIA	35.62	71.8	6	56A	0					
ABUYAMA	35.90	260.4	6	58A	0					
SEATTLE	36.68	72.6	7	7	2					
CHANGCHUN	37.04	280.5	7	?	-1	12	58	7	8	33 PP
HAWAII V.OB.	37.21	139.7	7	10	1					
PENTICTON	37.51	68.7	7	12A	0					
BANFF	39.03	64.2	7	24A	-1					
SPOKANE	39.60	69.9	7	30	1					
RESOLUTE	40.04	24.3	7	35A	2					
UKIAH	40.66	84.7	7	41	3					
MINERAL	40.96	82.0	7	42A	1				8	54
HUNGRY HORSE	41.22	67.3	7	42K	-1					
CALISTOGA	41.36	84.8	7	45A	1					
BERKELEY	42.02	85.5	7	49A	-1	14	9	3		
RENO	42.54	81.8	7	55A	1					
LICK	42.74	85.7	7	57A	2				9	46
ALERT	42.79	9.9	7	56	0	14	34	17	9	50 PCP
BUTTE	43.28	69.5	8	0A	0	14	25	1	9	40 PP
PRIEST	44.10	86.3	8	7A	1					
BOZEMAN	44.36	69.1	8	8A	0	14	39	-1		
PEKING	44.81	281.5	8	12A	0	14	50	4		
IRKUTSK	44.93	302.4	8	13A	0	14	49	1		
EUREKA	44.96	79.3	8	14K	1					
ULAN-BATOR	45.81	296.0	8	19A	-1	15	2	2		
DUGWAY	46.46	76.5	8	26K	1	15	7	-3		
SALT LAKE C.	46.70	75.2	8	27A	0				10	33 PP
PASADENA	46.94	86.6	8	29	0	15	19	3		
NORD	47.01	3.4	8	30	1					
ZO-SE	47.40	268.4	8	32A	0	15	33	10		
BOULDER CITY	47.84	82.3	8	36A	0				10	21 PP
PRICE	48.04	75.8	8	38K	1					
FLAMING GORGE	48.09	73.5	8	38A	0					
PAOTOW	48.22	286.0	8	41A	2	15	41	6		
NANKING	48.26	271.2	8	38	-1					
GLEN CANYON	49.22	79.1	8	47A	0					
RAPID CITY	49.84	66.5	8	51A	0					
LARAMIE	50.13	70.8	8	55	1					
GOLDEN	51.26	72.3	9	2	0	16	22	5		
ESEN BULAK	52.60	300.0	9	13A	1	16	40	5		
TUCSON	52.79	83.1	9	14	0	16	44	6		
SIAN	52.95	280.5	9	14	-1					
LANCHOW	54.86	285.6	9	30A	1	17	11	5		
MANHATTEN	56.76	67.3	9	41	-2	17	32	1		
LUBBOCK	57.42	75.6	9	47	0	17	43	3		
SCORESBY SD.	57.45	8.7	9	48	1					
KEVO	57.66	349.3	9	48	-1	18	15	32	11	47 PP
LAWRENCE	57.68	66.7	9	47	-2	17	43	0		
DUBUQUE	57.88	60.8	9	50	0	17	44	-2		
SEMIPALATNSK	58.09	312.1	9	54	2				17	12
CHENGTU	58.42	280.7	9	54A	0					
BAGUIO CITY	58.48	256.4	9	50	-5	17	53	-1		
TROMSOE	58.59	352.4	9	53	-2					
WICHITA MTS.	58.61	72.5	9	55	0	18	0	5	12	10 PP
APATITY	58.86	345.8	9	56A	-1	18	0	1	18	16 PS
TULSA	59.45	69.6	10	0	-1	18	7	1		
MANILA	59.52	254.6	10	6	4	18	36	29		
CHICAGO USA.	59.94	59.5	10	3	-2					
SODANKYLA	59.97	348.5	10	2	-3				39	24 PKPPKP
KIRUNA	60.21	351.3	10	4A	-3	18	18	2	39	25 PKPPKP
RABAUL	60.30	212.7	10	5	-2					
SCHEFFERVLLE	60.45	37.8	10	6	-2					
FLORISSANT	60.58	63.8	10	6	-3					
ST. LOUIS 1	60.77	63.8	10	10	0					
SVERDLOVSK	61.32	327.0				18	27	-3		
BLOOMINGTON	62.46	61.0	10	20	-2	18	41	-4		
KAJAANI	62.96	346.8	10	23	-2				39	24 PKPPKP
HONIARA	63.00	202.6	10	25	0	18	53	2		
KUNMING	63.15	277.2	10	26A	0	18	59	6		
CLEVELAND	63.49	56.2	10	29K	0				20	18
BREBEUF	64.48	48.5	10	33A	-2	19	9	-1	11	9 PCP
SKALSTUGAN	65.05	354.1	10	38A	-1				39	15 PKPPKP
PENNSYLVANIA	65.87	54.5	10	44	0					
PULKOVO	66.62	344.0	10	48	-1	20	3	27	13	16 PP

NURMIJARVI	66.80	347.1	10	48	-2	19	39	1		15	5 PPP
PORT MORESBY	66.90	215.9	10	49	-1	19	39	0			
LHASA	67.01	289.0	10	53A	2	19	44	4			
HELSINKI	67.09	346.9	10	51	-1						
WASHINGTON	67.70	55.4	10	42K	-13						
PALISADES	67.71	51.9	10	50A	-5	19	48	-1			
FORDHAM	67.84	52.0	10	57	1	19	52	2			
WESTON	67.92	49.3	10	57	0						
UPPSALA	68.30	350.7	10	57A	-2	19	53	-3		11	29 PCP
NHATRANG	68.71	262.9	11	0	-2						
CHAPEL HILL	68.89	58.8	11	3	0						
MOSCOW	68.90	338.4	11	1	-2	20	3	0		13	37 PP
SUVA	69.19	181.9				20	10	4		20	40 PS
COLUMBIA	69.25	61.4	11	5A	0	20	9	2			
SHILLONG	69.50	285.4	11	7A	0	20	13	3			
HALIFAX	69.66	43.1	11	7	-1						
TASHKENT	69.94	311.5	11	9A	0	20	23	8			
GOTEBORG	70.92	353.4	11	13A	-2					11	57
KHOROG	71.85	307.5	11	23	2	20	43	5			
ABERDEEN	71.86	1.3	11	21	0	20	33	-5		36	15
CHITTAGONG	71.92	283.2	11	22A	1	20	37	-1	11 28	13	57 PP
KARLSKRONA	72.13	351.1	11	19A	-3					11	53
COPENHAGEN	72.89	352.8	11	27A	0	20	51	2			
KOUMAC	72.93	195.6	11	26	-1						
HOWRAH	73.90	285.9	11	33	0					13	19
DEHRA DUN	73.95	298.4	11	32	-1	21	2	1		16	20 PPP
DURHAM	74.27	1.1	11	37K	2	21	8	3		25	12 SS
NOUMEA	74.30	193.3	11	35	0						
WARSAK DAM	74.56	305.3	11	37A	0						
LAHORE	75.02	301.8	11	38A	-1	21	16	3			
WARSAW	75.34	347.0	11	42A	1	21	38	21		14	32 PP
NEW DELHI	75.76	297.9	11	41A	-3	21	16	-5		14	33 PP
WITTEVEEN	76.09	356.0	11	47	2						
DE BILT	76.87	356.9	11	51A	1	21	39	5		27	15 SS
HALLE	77.08	352.5	11	51	0	21	36	0			
CHARTERS TS.	77.11	212.6	11	50	-1						
COLLMBERG	77.19	351.8	11	52	0					22	9
KEW	77.58	0.4	11	54A	0	21	46	5		23	0
ASHKABAD	77.60	316.6	11	54	0	22	1	20			
KRAKOW	77.62	347.2	11	53	-1	21	42	0		14	51 PP
JENA	77.67	352.7	11	55	1	21	39	-3		15	0 PP
RACIBORZ	77.83	348.3	11	56	1					14	53 PP
PRAGUE	78.27	350.7	11	59	1	21	47	-2			
PRUHONICE	78.34	350.6	11	58	0	21	44	-5		27	15 SS
FELDBERG	78.60	354.6	12	13	14						
DOURBES	78.89	357.1	12	2	1	21	57	2			
BERMUDA	79.05	51.3	12	0	-2	21	57	0			
KASPERSKE H.	79.28	351.1	12	2	-1					14	23
HEIDELBERG	79.40	354.4	12	5	1						
PORT BLAIR	79.46	275.4	12	7A	3	22	17	16			
TIFLIS	79.55	327.7	12	6A	1	22	7	5		22	29 SCS
SIMFEROPOL	79.73	336.3	12	6A	0	22	3	-1		22	22 SCS
BRATISLAVA	79.84	348.6	11	55A	-11					14	34 PP
VIENNA-H.	79.85	349.1	12	7A	1					15	12 PP
QUETTA	79.95	306.1	12	7A	0	22	11	5	12 17	15	8 PP
STUTTGART	79.99	353.9	12	7K	0	22	4	-3		27	34
PARIS	80.23	358.5	12	9A	1	22	29	20			
TUBINGEN	80.24	354.1	12	10A	2						
BUDAPEST	80.27	347.2	12	9	1					14	34
STRASBOURG	80.27	354.9	12	9A	1	22	15	5		15	25 PP
FOLINIERE	80.29	0.5	12	8	-1						
EBINGEN	80.60	354.1	12	11	1						
VISHAKHAPTNM	80.61	286.5	12	10A	0	22	46	33		22	17 SKS
RAVENSBURG	80.95	353.6	12	13A	1						
GORIS	81.00	325.6	12	14A	2					22	32 SCS
BASLE	81.33	355.0	12	15	1					16	6
BESANCON	81.69	356.1	12	16	0					12	36
GARCHY	81.75	358.1	12	17A	1	22	26	1		12	22 PCP
CHUR	81.88	353.6	12	18	1						
BRISBANE	82.02	204.5	12	25	7	22	31	3			
LJUBLJANA	82.23	350.0	12	19A	0					15	26 PP
ZAGREB	82.29	349.0	12	15	-4						
TEHERAN	82.39	320.3	12	37A	18	22	51	20			
BELGRADE	82.66	345.7	12	23K	2	22	42	8		23	51 PPS
PADOVA	83.13	351.8	12	25	2	22	55	16		24	45
CLERMONT-FD.	83.26	358.0	12	26A	2						
HYDERABAD	83.73	289.9	12	23A	-3	22	47	2		23	53 PS
SARAJEVO	83.89	346.9								12	27
HOPE	83.98	68.8	12	29	1						

KARACHI	84.24	302.9	12	35	6						
LEMBANG	84.60	252.2	12	30A	-1						
ISTANBUL KA.	84.61	338.5	12	31	0						
TANGERANG	84.67	253.3	12	29A	-2						
ISOLA	84.70	355.1	12	32	1						
PRATO	84.71	352.1	12	34	3	22	59	4			
FLORENCE X.	84.80	352.0								22	17
MONACO	85.12	354.8	12	34	1						
POONA	85.54	294.1	12	37A	2	23	20	17		15	57 PP
BOMBAY	85.83	295.1	12	36	-1	23	19	13		23	12 SKS
MADRAS	86.15	285.9	12	39	1	23	14	5		16	51 PP
ROME	86.55	350.9	12	41A	1	23	17	5		15	55 PP
SHIRAZ	87.19	316.4	12	42A	-1	23	4	-15	12 50	16	9 PP
SERRA PILAR	87.60	6.7	12	46K	1						
TORTOSA	88.24	359.8	13	0	12	23	17	-11			
PONTA DELGDA	88.45	20.3	12	54	5					33	31
COIMBRA	88.54	6.6	12	50	0						
RIVERVIEW	88.57	203.9	12	50A	0	23	17	-15		23	57
ATHENS	88.73	341.6	12	50A	-1	23	26	-7		23	40 S
TOLEDO	89.10	3.3	12	53A	0	23	31	-5		16	25 PP
KSARA	89.61	331.0	12	54A	-1	23	42	1		16	26 PP
SAN JUAN	89.70	60.5	12	56K	1	23	47	5			
TUAI	89.79	182.4	12	58	2						
MESSINA	89.85	348.0	12	55	-1	23	26	-17		16	28 PP
CHATEAU	90.24	183.7	12	45	-13					13	18
CANBERRA	90.54	205.1	12	59A	0						
GALERAZAMBA	90.54	72.1	12	55	-4					24	1 SKKS
ALICANTE	90.70	0.6	13	0	0					16	10
JERUSALEM	91.71	330.8	13	6	1						
GRANADA	91.81	3.1	13	10A	5	24	31	30		16	15 PP
ALMERIA	92.17	2.2	13	7	0					16	33 PP
MALAGA	92.24	3.7	13	7K	0					16	44 PP
WELLINGTON	92.35	184.1				23	43	-22		26	3 SP
ST. KITTS	92.39	58.4	13	6	-2						
ADELAIDE	93.35	213.1	13	12	0	23	42	-32		25	35 SP
TOOLANGI	93.62	207.0	13	12	-1					13	32
CHINCHINA	94.91	75.9	13	21	2						
CARACAS	95.65	65.6	13	23A	0	23	56	2			
FUQUENE	95.66	74.1	13	24	1						
BOGOTA	96.13	74.8	13	26	1	23	59	2		31	14 SS
ROXBURGH	96.88	187.7				24	9	8		26	17 PS
TRINIDAD	98.62	61.0	13	36	0					25	51
BENI ABBES	98.89	2.1	13	37	0					17	40 PP
BANGUI	122.33	338.2	18	51	0					20	29 PP
CAPE HALLETT	123.53	183.7	18	54	0						
LWIRO	125.53	324.1	19	0	3						
SANTA LUCIA	126.79	99.4	19	1	1					38	11
WILKES	128.66	209.0	19	3	0					38	27 SS
SCOTT BASE	129.17	183.7	19	4	0						
TANANARIVE	130.83	293.2	19	10	2					21	29 PP
MIRNY	134.55	214.1	19	14	0					21	52 PP
BYRD STATION	135.42	167.5	18	18	-58					22	43 PP
BROKEN HILL	136.78	318.0	19	20A	1						
SOUTH POLE	141.13	180.0	19	20	-7						
BULAWAYO	141.75	313.9	19	23	-5						
BANDEIRA	142.18	339.1	19	26K	-2					22	35 PP
MAWSON	146.07	217.6	19	35A	0				19 55		
PIETERMZBURG	148.80	302.4	19	42	2						
KIMBERLEY	150.91	311.4	19	42K	-1						

AUGUST 31 17.H 56.M 10.S EPICENTRE 51.27-179.86 DEPTH= 55.KM

A=-0.62818 B=-0.00151 C= 0.77807 D=-0.0024 E= 1.0000
G=-0.7781 H=-0.0019 K=-0.6282 HT= -5.9

DEPTH OF FOCUS= 0.003R

SE= 1.80

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
MAGADAN	18.47	308.0	4	14	0								
COLLEGE	21.42	38.3	4	44	-1								
YAKUTSK	28.97	311.4	5	56A	-1								
MATUSIRO	33.11	260.1	6	33	0								
VLADIVOSTOK	33.25	275.1	6	34	0								
MOULD BAY	33.96	21.9	6	41A	1						9	18	PCP

VICTORIA	35.70	71.7	6	56A	1					
ABUYAMA	35.83	260.3	6	57A	1					
CHANGCHUN	36.98	280.5	7	5	-1					
LONGMIRE	37.49	73.5	7	8A	-2					
PENTICTON	37.59	68.6	7	12A	1					
RESOLUTE	40.12	24.3	7	34	2					
MINERAL	41.03	81.9	7	46A	6					
HUNGRY HORSE	41.30	67.2	7	41	-1					
CALISTOGA	41.43	84.7	7	42A	-1					
BERKELEY	42.10	85.4	7	48A	0					
RENO	42.62	81.7	7	54A	1					
LICK	42.81	85.5	7	54A	0					
ALERT	42.85	9.9	7	55	0					
BUTTE	43.36	69.4	7	59	0					
PRIEST	44.18	86.2	8	6A	1					
BOZEMAN	44.44	69.0	8	7	0					
EUREKA	45.04	79.2	8	13	1					
DUGWAY	46.54	76.3	8	24A	0					
SALT LAKE C.	46.78	75.1	8	27	1					
PASADENA	47.02	86.5	8	28	0					
BOULDER CITY	47.92	82.2	8	36	1					
PRICE	48.12	75.7	8	37A	1					
PAOTOW	48.17	286.0	8	38A	1					
FLAMING GRGE	48.17	73.4	8	37	0					
GLEN CANYON	49.30	78.9	8	45	-1					
RAPID CITY	49.92	66.4	8	49	-1					
LARAMIE	50.22	70.7	8	51	-2					
GOLDEN	51.35	72.2	9	2	1					
LANCHOW	54.80	285.5	9	28A	1					
MANHATTEN	56.85	67.2	9	41	0					
KEVO	57.70	349.3	9	47	0					
LAWRENCE	57.77	66.6	9	46	-2					
DUBUQUE	57.96	60.7	9	49	0					
TROMSOE	58.63	352.4	9	53	-1					
WICHITA MTS.	58.69	72.4	9	54	0	17 54	1		12	0 PP
APATITY	58.89	345.7	9	55A	-1					
TULSA	59.54	69.5	9	59	-1					
SODANKYLA	60.01	348.5	10	3K	-1					
KIRUNA	60.25	351.3	10	4A	-1					
SCHEFFERVLLE	60.53	37.7	10	6	-1					
FLORISSANT	60.67	63.7	10	7	-1					
ST. LOUIS 1	60.86	63.7	10	8	-1					
BLOOMINGTON	62.55	61.0	10	18	-3					
KAJAANI	62.99	346.8	10	23	-1					
KUNMING	63.08	277.2	10	23	-1					
ALMATA-Z	64.53	307.9	10	34K	0					
BREBEUF	64.56	48.4	10	38	4					
SKALSTUGAN	65.09	354.0	10	36	-1					
NURMIJARVI	66.84	347.1	10	48K	0					
HELSINKI	67.12	346.8	10	50	0					
WESTON	68.01	49.3	10	55	-1					
UPPSALA	68.33	350.6	10	57A	-1					
MOSCOW	68.92	338.3	11	1A	0					
CHAPEL HILL	68.97	58.7	11	2	0					
NAMANGAN	69.05	309.7	11	4	2					
COLUMBIA	69.33	61.3	11	4	0					
SHILLONG	69.44	285.4	11	4A	-1					
TASHKENT	69.92	311.5	11	8A	1					
GOTEBORG	70.96	353.3	11	11A	-3					
CHATRA	71.32	289.6	11	16A	0					
KHOROG	71.82	307.5	11	21	2					
CHITTAGONG	71.86	283.2	11	20A	1	20 34	0	11 29	13	52 PP
KARLSKRONA	72.17	351.0	11	18A	-3					
DUZHANBE	72.32	310.0	11	21A	-1					
CALCUTTA	73.83	285.8							18	10
DEHRA DUN	73.91	298.4	11	30	-1					
WARSAK DAM	74.53	305.2	11	35	0					
LAHORE	74.99	301.7	11	41	4					
NEW DELHI	75.72	297.8	11	39A	-3					
CHARTERS TS.	77.03	212.5	11	48	-1					
HALLE	77.12	352.5	11	50	1					
COLLMBERG	77.22	351.8	11	51	1				14	43
KEW	77.63	0.3	11	52	0					
VANNOVSKAYA	77.70	316.7	11	51	-2					
JENA	77.71	352.6	11	53	0				14	59 PP
DOURBES	78.93	357.1	12	1	2					
KASPERSKE H.	79.32	351.1	12	2	0					
TIFLIS	79.55	327.6	12	4	1					
BRATISLAVA	79.88	348.6	11	53	-12					

QUETTA	79.92	306.1	12	6A	1	22	10	7			15	6 PP
STUTTGART	80.03	353.9	12	6	1							
STRASBOURG	80.31	354.9	12	8	1							
FOLINIERE	80.34	0.4	12	7	0							
BESANCON	81.73	356.0	12	16	2							
GARCHY	81.80	358.0	12	14	-1						12	40
TEHERAN	82.38	320.2	12	36	18							
CLERMONT-FD.	83.31	357.9	12	23	1						12	50
LEMBANG	84.52	252.1	12	27K	-1							
ISOLA	84.74	355.0	12	31	1							
MONACO	85.17	354.7	12	32	0							
SHIRAZ	87.18	316.3	12	42A	0	23	6	-9	12	51	16	8 PP
SAN JUAN	89.79	60.4	12	55	1							
CANBERRA	90.46	205.0	12	57A	0							
TOOLANGI	93.54	206.9	13	10	-1							
HUANCAYO	108.40	86.3									18	59 PP
BYRD STATION	135.39	167.5	19	13	-1							
SOUTH POLE	141.08	180.0	19	19	-6							
BULAWAYO	141.74	313.7	19	24	-2							
MAWSON	145.99	217.5	19	34A	1						20	15 SKSP
WINDHOEK	148.46	329.0	19	44	7							
KIMBERLEY	150.89	311.2	19	47A	6							

SEPTEMBER 1 3.H 46.M 1.S EPICENTRE 51.29-179.70 DEPTH= 0.KM

A=-0.62799 B=-0.00333 C= 0.77822 D=-0.0053 E= 1.0000
G=-0.7782 H=-0.0041 K=-0.6280 HT= -5.9

SE= 1.89

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PETROPAVLOVK	13.40	285.9	3	17	3	5	49	4				
MAGADAN	18.54	307.9	4	22	2						8	11 SS
COLLEGE	21.34	38.3	4	51	0	8	35	-9			16	35 SCS
Y.-SAKHLINSK	24.76	274.9	5	26A	1	9	49	4				
YAKUTSK	29.04	311.4	6	3A	-1	10	49	-6				
TUKUBASAN	32.26	258.0	6	32K	-1							
MATUSIRO	33.22	260.2	6	41A	0	12	3	2				
VLADIVOSTOK	33.35	275.2	6	41A	-1	12	1	-2			8	2 PP
MOULD BAY	33.91	21.9	6	48A	1						9	25 PCP
KIPAPA	34.28	142.3	6	50	0							
HONOLULU	34.36	142.5	6	45	-6	12	17	-1			7	58 PP
VICTORIA	35.60	71.8	7	3A	2							
ABUYAMA	35.93	260.5	7	5A	1							
SEATTLE	36.66	72.5	7	13	3							
CHANGCHUN	37.08	280.5	7	14A	0	13	1	1				
HAWAII V.OB.	37.16	139.8	7	31	16	13	3	1				
LONGMIRE	37.38	73.6	7	15	-1							
PENTICTON	37.49	68.7	7	19A	2							
SPOKANE	39.58	69.8	7	35	0							
RESOLUTE	40.06	24.3	7	40K	1							
UKIAH	40.63	84.7	7	48	5							
MINERAL	40.93	82.0	7	47A	1							
BLUE MTS.	41.06	73.7	7	48A	1	14	3	3			13	33 SCP
HUNGRY HORSE	41.20	67.3	7	49	1	14	1	-2				
CALISTOGA	41.33	84.8	7	21A	-28							
BERKELEY	41.99	85.5	7	25	-30	14	15	1				
RENO	42.52	81.8	7	59K	0							
LICK	42.71	85.7	8	2A	2							
ALERT	42.82	9.9	8	2	1	14	31	5				
BUTTE	43.26	69.5	8	6	1	14	30	-3			18	13 SCS
PRIEST	44.07	86.3	8	13A	1							
BOZEMAN	44.34	69.1	8	14	0	14	44	-5			18	16 SCS
PEKING	44.85	281.6	8	18A	0	14	55	-1				
EUREKA	44.93	79.3	8	20	1							
IRKUTSK	44.98	302.5	8	19A	0	14	56	-2				
ULAN-BATOR	45.85	296.1	8	26A	0	15	9	-1				
DUGWAY	46.44	76.5	8	32A	2	15	19	0			20	21
SALT LAKE C.	46.68	75.2	8	33	1							
PASADENA	46.91	86.6	8	34	0	15	25	0				
NORD	47.04	3.4	8	36	1	15	9	-18				
ZO-SE	47.43	268.5	8	38A	0	15	32	-1				
BOULDER CITY	47.81	82.3	8	42	1						9	5
PRICE	48.02	75.8	8	44A	1							
FLAMING GRGE	48.07	73.5	8	44	1							
PAOTOW	48.26	286.1	8	46A	1	15	50	6				

NANKING	48.29	271.3	8	45	0					
GLEN CANYON	49.19	79.1	8	52	0					
RAPID CITY	49.82	66.5	8	57	0					
LARAMIE	50.11	70.8	8	59	0				21	15
GOLDEN	51.24	72.3	9	9	1				21	25
ESEN BULAK	52.64	300.0	8	46	-32					
TUCSON	52.76	83.1	9	19	0	16	50	3		
TUCSON TELE.	52.77	82.9	9	19	0					
LANCHOW	54.90	285.6	9	35	0	17	21	5		
MANHATTEN	56.75	67.3	9	48A	0	17	38	-2		
LUBBOCK	57.40	75.6	9	53	0	17	49	0		
SCORESBY SD.	57.48	8.7	9	53	0					
KEVO	57.70	349.3	9	54A	-1	17	47	-6	12	12 PP
DUBUQUE	57.87	60.8	9	55A	-1	17	51	-4		
SEMIPALATNSK	58.14	312.1	9	59A	1					
WICHITA MTS.	58.59	72.5	10	1A	0	18	4	0	19	44 SCS
TROMSOE	58.63	352.5	10	0	-1					
APATITY	58.90	345.8	10	1A	-2	18	5	-4	18	23 PS
TULSA	59.43	69.6	10	7	0	18	15	0		
CHICAGO JSA.	59.93	59.6	10	8	-2					
SODANKYLA	60.02	348.6	10	10A	-1				24	40 PKPPKP
KIRUNA	60.25	351.3	10	11A	-2	18	15	-11		
ROLLA	60.32	65.5	10	12A	-1	18	21	-6		
SCHEFFERVLLE	60.45	37.8	10	13A	-1					
FLORISSANT	60.57	63.8	10	14A	-1	18	27	-3		
ST. LOUIS 1	60.76	63.8	10	15	-1	18	28	-4		
SVERDLOVSK	61.37	327.0	10	21K	1					
BLOOMINGTON	62.45	61.1	10	25	-2	18	46	-8		
LONDON ONT.	62.55	54.8	10	27	-1					
HONIARA	62.98	202.7	10	29	-2	18	59	-2		
KAJAANI	63.00	346.9	10	29A	-2					
KUNMING	63.18	277.3	10	31A	-1					
CLEVELAND	63.48	56.2	10	34A	0	19	10	3		
BREBEUF	64.47	48.5	10	38A	-3	19	15	-4	11	15 PCP
SKALSTUGAN	65.09	354.1	10	44A	-1					
PENNSYLVANIA	65.87	54.5	10	49	-1					
FRUNSE	66.28	309.3	10	53A	1	19	42	1		
PULKOVO	66.67	344.0	10	54A	-1	19	42	-4		
NURMIJARVI	66.85	347.2	10	55A	-1	19	45	-3	15	13 PPP
LHASA	67.05	289.0	10	59A	2					
HELSINKI	67.13	346.9	10	57	-1					
WASHINGTON	67.69	55.4	10	47	-14					
PALISADES	67.70	51.9	11	1A	0	19	56	-3	21	10 SCS
FORDHAM	67.84	52.0	11	2	0	19	59	-1		
UPPSALA	68.34	350.7	11	4A	-1	20	0	-6	11 20	15 8
CHAPEL HILL	68.88	58.8	11	8	-1					
MOSCOW	68.95	338.4	11	9A	0	20	3	-10		
SUVA	69.15	181.9				19	34	-42		
COLUMBIA	69.23	61.4	11	11	0	20	15	-2		
SHILLONG	69.54	285.5	11	12A	-1	20	14	-6		
HALIFAX	69.67	43.2	11	12	-2					
TASHKENT	69.99	311.6	11	16A	0	20	27	1	13	55 PP
GOTEBORG	70.95	353.4	11	20A	-1				11 40	
CHATRA	71.42	289.7	11	23	-1	20	36	-6		
ABERDEEN	71.89	1.4	11	34A	7	20	42	-6	25	32 SS
KHOROG	71.90	307.6	11	29	2					
CHITTAGONG	71.96	283.3	11	28A	1	20	46	-2	11 39	14 3 PP
KARLSKRONA	72.17	351.1	11	26A	-3					
KOUMAC	72.91	195.7	11	32	-1					
COPENHAGEN	72.93	352.8	11	33	0	21	1	1		
CALCUTTA	73.93	285.9							13	2
DEHRA DUN	74.00	298.5	11	37	-2	21	8	-4	14	27 PP
NOUMEA	74.27	193.3	11	41K	0					
DURHAM	74.30	1.1	11	41A	0	21	17	2	14	35 PP
BOKARO	74.49	288.7	11	44A	2	21	16	-1		
WARSAK DAM	74.61	305.3	11	43A	0					
LAHORE	75.07	301.8	11	45	-1					
WARSAW	75.39	347.0	11	47A	0	21	25	-2	14	35 PP
NEW DELHI	75.81	297.9	11	45A	-5	21	22	-10	14	35 PP
WITTEVEEN	76.13	356.0	11	53A	1					
DE BILT	76.91	356.9	11	57	1	21	45	1		
CHARTERS TS.	77.09	212.7	11	56	-1					
HALLE	77.12	352.6	11	56	-1				22	30 PS
COLLMBERG	77.23	351.9	11	57A	-1				12	10 PCP
KEW	77.62	0.4	11	59A	-1	21	50	-1	27	18 SS
ASHKABAD	77.65	316.6	12	1	1					
KRAKOW	77.67	347.2	12	1	1	21	45	-7		
JENA	77.71	352.7	12	1	1	21	53	1	15	19 PP
RACIBORZ	77.87	348.3	12	3	2				12	8 PCP

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BENSBERG	77.96	355.6	12	2A	0						
PRAGUE	78.31	350.8	12	5	1	21	58	-1			
PRUHONICE	78.38	350.7	12	3	-1	21	52	-8	15	18	PP
CHEB	78.49	352.1	12	8	3				15	24	PP
FELDBERG	78.63	354.7	12	18	13						
DOURBES	78.93	357.2	12	8	1	22	5	0			
BERMUDA	79.04	51.4	12	6	-2	22	4	-3			
KASPERSKE H.	79.32	351.2	12	9A	0				15	17	PP
HEIDELBERG	79.44	354.4	12	10	0						
TIFLIS	79.60	327.8	12	11A	0	22	13	1	12	28	PCP
SIMFEROPOL	79.78	336.3	12	12	0	22	18	4			
BRATISLAVA	79.88	348.7	12	5A	-7	22	34	19	15	17	PP
VIENNA-H.	79.89	349.2	12	12A	0						
JERSEY	79.89	1.6	11	29	-43						
QUETTA	80.00	306.2	12	14A	1	22	19	2	12	25	PCP
STUTTGART	80.03	354.0	12	13	0	22	12	-5	28	4	SS
PARIS	80.27	358.5	12	15A	1				13	3	
TUBINGEN	80.28	354.1	12	15	1						
BUDAPEST	80.31	347.2	12	16	1				22	41	SCS
STRASBOURG	80.31	355.0	12	15A	0	22	21	1	15	17	PP
FOLINIERE	80.32	0.5	12	15	0						
EBINGEN	80.64	354.1	12	17	1						
RAVENSBURG	80.99	353.7	12	19	1						
BESANCON	81.72	356.1	12	21	-1						
GARCHY	81.79	358.1	12	23A	1	22	35	0	12	27	PCP
BRISBANE	82.01	204.5	12	27	4	22	37	0			
LJUBLJANA	82.27	350.1	12	25A	0				15	33	PP
ZAGREB	82.33	349.0	12	24	-1						
TEHERAN	82.44	320.3	12	25	-1	22	41	-1			
BELGRADE	82.70	345.7	12	28	1	22	19	-26	23	13	PS
PADOVA	83.17	351.8	12	45	16				24	27	
CLERMONT-FD.	83.29	358.0	12	31	1	22	52	1			
HYDERABAD	83.77	290.0							22	53	
HOPE	83.97	68.9	12	35	1						
SOFIA	84.27	343.2	12	35	0	23	3	3			
LEMBANG	84.62	252.2	12	48	11						
ISTANBUL UN.	84.71	338.6	12	37	0						
ISOLA	84.74	355.1	12	39	2						
FLORENCE X.	84.84	352.1	12	46A	8	23	25	19	16	11	PP
MONACO	85.16	354.8	12	39	-1						
POONA	85.58	294.1							22	12	
BOMBAY	85.87	295.1	12	43	0	23	14	-2	15	59	PP
BAGNERES	86.03	0.1	12	43	-1						
AQUILA	86.05	350.3	12	45	1	23	21	3	16	5	PP
MADRAS	86.20	285.9							23	19	
ROME	86.59	350.9	12	47A	0	23	25	2	16	9	PP
SHIRAZ	87.24	316.5	12	50A	0				16	15	PP
SERRA PILAR	87.64	6.7	12	52A	0						
PONTA DELGDA	88.48	20.9							30	19	
RIVERVIEW	88.55	203.9	12	56A	0				24	48	PS
COIMBRA	88.57	6.7	12	55A	-1						
ATHENS	88.78	341.7	12	56A	-1	23	33	-10			
KARAPIRO	88.94	183.8	12	57	-1						
TOLEDO	89.13	3.3	12	59	0	23	46	-1	16	31	PP
KSARA	89.66	331.0	13	1	0	23	54	2	16	35	PP
SAN JUAN	89.69	60.5	13	2	1	23	51	-1			
MESSINA	89.89	348.0	12	59	-3	23	38	-16	16	27	PP
CANBERRA	90.52	205.1	13	5A	0				13	21	*SP
GALERAZAMBA	90.52	72.1	13	0	-5	23	42	-17			
JERUSALEM	91.76	330.8	13	11	0						
GRANADA	91.84	3.1	13	52K	41	24	16	5			
MALAGA	92.27	3.8	13	13A	0	24	27	12	16	57	PP
WELLINGTON	92.31	184.2							25	27	PS
ST. CLAUDE	94.01	58.3				24	26	-4	17	9	PP
CHINCHINA	94.89	75.9	13	25	0	23	54	-43	17	21	PP
FORT FRANCE	95.38	58.6							16	58	
CARACAS	95.63	65.7	13	30K	1	23	59	-6			
FUQUENE	95.64	74.1	13	31	2				17	19	PP
BOGOTA	96.11	74.9	13	30	-1				17	22	PP
TRINIDAD	98.61	61.1	13	36	-6						
BANGUI	122.37	338.2	18	58	1				20	41	PP
LWIRO	125.58	324.1	19	5A	1						
WILKES	128.64	209.0	19	8	-2				22	41	SKP
TANANARIVE	130.87	293.2	19	17	3						
MIRNY	134.54	214.1	19	21	0						
BYRD STATION	135.38	167.6	19	16	-6						
BROKEN HILL	136.83	318.1	19	19	-6						
SOUTH POLE	141.10	180.0	19	26	-7						

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

BULAWAYO	141.80	313.9	19	31	-3						
BANDEIRA	142.22	339.2	19	31K	-4					22	41 PP
MAWSON	146.06	217.5	19	39A	-2						
WINDHOEK	148.50	329.3	19	52A	7						
KIMBERLEY	150.96	311.5	19	48	-1						

SEPTEMBER 1 4.H 41.M 41.S EPICENTRE 51.37-179.87 DEPTH 54.KM

A=-0.62684 B=-0.00142 C= 0.77914 D=-0.0023 E= 1.0000
G=-0.7791 H=-0.0018 K=-0.6283 dT= -5.9

DEPTH OF FOCUS= 0.003R

SE= 2.70

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
PETROPAVLOVK	13.27	285.5	3	9	1							
MAGADAN	18.40	307.8	4	15	2							
COLLEGE	21.34	38.5	4	47	2	8	59	26			9	47
Y.-SAKHLINSK	24.65	274.6	5	20A	3							
YAKUTSK	28.90	311.2	5	57	1	10	43	2				
TUKUBASAN	32.17	257.7	6	25K	0							
MATUSIRO	33.12	260.0	6	34A	1							
VLADIVOSTOK	33.24	274.9	6	36A	2							
MOULD BAY	33.87	22.0	6	43A	3						9	19 PCP
KIPAPA	34.41	142.1	6	45	1							
VICTORIA	35.68	71.8	6	59A	4							
ABUYAMA	35.84	260.2	6	58	1							
CHANGCHUN	36.96	280.3	7	7A	1							
PENTICTON	37.56	68.7	7	13	4							
BANFF	39.08	64.2	7	26A	2							
RESOLUTE	40.03	24.3	7	35K	3							
UKIAH	40.73	84.7	7	45	8						8	53
MINERAL	41.02	82.0	7	43A	3							
BLUE MTS.	41.14	73.7	7	44A	3	13	56	6			13	26 SCP
HUNGRY HORSE	41.27	67.3	7	44	2						24	23
CALISTOGA	41.43	84.8	7	45A	2							
RENO	42.61	81.8	7	55A	2							
ALERT	42.76	9.9	7	57	3							
LICK	42.81	85.6	7	57A	3							
BUTTE	43.33	69.5	8	1	2	14	20	-2	8	13	8	33 PP
PRIEST	44.17	86.3	8	6	1							
BOZEMAN	44.41	69.1	8	10	3				8	24		
PEKING	44.73	281.4	8	11A	1							
EUREKA	45.02	79.3	8	5	-7							
ULAN-BATOR	45.72	295.9	8	20A	2							
DUGWAY	46.52	76.4	8	26A	2							
SALT LAKE C.	46.76	75.2	8	28	2							
PASADENA	47.01	86.6	8	29	1							
ZO-SE	47.33	268.2	8	32	2							
BOULDER CITY	47.91	82.3	8	38	3							
PRICE	48.10	75.8	8	39A	2							
PAOTOW	48.13	285.9	8	40A	3							
FLAMING GRGE	48.15	73.5	8	39	2							
GLEN CANYON	49.28	79.0	8	47	1							
RAPID CITY	49.89	66.5	8	52	2							
LARAMIE	50.19	70.7	8	56	3						24	41
GOLDEN	51.32	72.2	9	3	2							
ESEN BULAK	52.51	299.9	9	13A	3							
TUCSON	52.86	83.0	9	14	1							
TUCSON TELE.	52.87	82.9	9	14	1							
LANCHOW	54.77	285.5	9	28A	1							
MANHATTEN	56.81	67.2	9	43A	2							
SCORESBY SD.	57.41	8.6	9	48	2							
KEVO	57.60	349.3	9	48A	1						10	44 PCP
DUBUQUE	57.92	60.8	9	50	1							
SEMIPALATNSK	58.00	312.0				17	51	7				
TROMSOE	58.53	352.4	9	54	1							
WICHITA MTS.	58.67	72.4	9	56	2	18	0	7	10	9		
APATITY	58.79	345.7	9	55A	0	17	58	3				
TULSA	59.51	69.6	10	2	2	18	10	6				
SODANKYLA	59.91	348.5	10	4A	-1							
CHICAGO USA.	59.98	59.5	10	4	0							
KIRUNA	60.15	351.3	10	6A	1						10	35
SCHEFFERVLLE	60.45	37.7	10	7	0							
FLORISSANT	60.63	63.7	10	8	0							

ST. LOUIS	60.82	63.8	10	10	1					
SVERDLOVSK	61.24	326.9	10	14K	2					
BLOOMINGTON	62.50	61.0	10	20A	-1					
KAJAANI	62.89	346.8	10	25A	2					
KUNMING	63.06	277.1	10	25	1					
BREBEUF	64.50	48.4	10	34K	0					
SKALSTUGAN	65.00	354.0	10	38A	1					
PENNSYLVANIA	65.92	54.4	10	44	1					
FRUNSE	66.14	309.2	10	47A	3					
PULKOVO	66.56	343.9	9	47A	-60					
NURMIJARVI	66.74	347.1	10	49A	1					
HELSINKI	67.02	346.8	10	52A	2					
PALISADES	67.74	51.8	10	56	2					
UPPSALA	68.24	350.6	10	59A	2					
MOSCOW	68.83	338.3	11	3	2					
CHAPEL HILL	68.93	58.7	11	3	1					
COLUMBIA	69.29	61.4	11	6	2					
SHILLONG	69.41	285.3	11	6A	1					
PORT VILA	69.58	192.0	11	14A	8					
TASHKENT	69.85	311.4	11	11A	4					
GOTEBORG	70.86	353.3	11	14A	1					
CHATRA	71.29	289.6	11	17	1					
KHOROG	71.76	307.4	11	23	4					
CHITTAGONG	71.83	283.1	11	22A	3	20 40	6	11 29	13 59	PP
KARLSKRONA	72.07	351.0	11	20A	-1					
DUZHANBE	72.25	310.0	11	24A	2	20 48	9			
COPENHAGEN	72.83	352.7	11	27	2					
DEHRA DUN	73.86	298.3	11	31	0					
DURHAM	74.22	1.0	11	36A	3					
BOKARO	74.35	288.5	11	36A	2				21 6	
WARSAK DAM	74.47	305.2	11	37A	2					
LAHORE	74.93	301.7	11	37	0					
NEW DELHI	75.67	297.8	11	39A	-2					
WITTEVEEN	76.04	355.9	11	48	4					
HALLE	77.02	352.4	11	51	2					
CHARTERS TS.	77.11	212.5	11	51	1					
COLLMBERG	77.13	351.8	11	51A	1				14 47	PP
LWOW	77.15	344.4	11	52A	2					
KEW	77.54	0.3	11	54A	2					
KRAKOW	77.56	347.1	11	54	2				12 5	PCP
JENA	77.61	352.6	11	54	2			12 26	14 49	PP
VANNOVSKAYA	77.62	316.7	11	54	2					
RACIBORZ	77.76	348.2	11	57	4				12 1	PCP
BENSBERG	77.87	355.5	11	56A	2			12 6		
DOURBES	78.84	357.1	12	2	3					
KISHINEV	78.93	340.4	12	2	2					
KASPERSKE H.	79.22	351.1	12	4A	3				13 23	
TIFLIS	79.47	327.6	12	5	2					
SIMFEROPOL	79.66	336.2	12	6	2					
BRATISLAVA	79.78	348.5	11	59	-5				12 7	PCP
VIENNA-H.	79.79	349.1	12	7A	3					
QUETTA	79.86	306.0	12	8A	3	22 10	8		22 53	
STUTTGART	79.93	353.9	12	7	2					
PARIS	80.18	358.4	12	9A	3				12 38	
STRASBOURG	80.21	354.9	12	9	2					
FOLINIERE	80.24	0.4	12	8	1					
FELDBERG	80.90	354.6	12	13	3					
BESANCON	81.63	356.0	12	17	3					
GARCHY	81.70	358.0	12	17A	3	22 28	7			
LJUBLJANA	82.17	349.9	12	19A	2					
TEHERAN	82.30	320.2	12	21	4				24 32	PPS
BELGRADE	82.59	345.6	12	28	9				13 39	
CLERMONT-FD.	83.21	357.9	12	26A	4					
HOPE	84.04	68.7	12	30	4					
FLORENCE X.	84.74	351.9							12 49	
MONACO	85.07	354.7	12	34	3					
BOMBAY	85.74	295.0	12	37	2					
BAGNERES	85.94	360.0	12	37	1					
ROME	86.49	350.8							12 41	
SHIRAZ	87.11	316.3	12	44A	3	23 7	-8	12 54	16 3	PP
KARAPIRO	89.02	183.6	12	52	1					
TOLEDO	89.05	3.2	12	54K	3					
KSARA	89.54	330.9	12	57	4					
SAN JUAN	89.75	60.4	12	57	3	23 46	7	13 11		
CANBERRA	90.55	205.0	13	0	2					
JERUSALEM	91.63	330.7	13	6	3					
TRINIDAD	98.67	60.9	13	37	2					
BANGUI	122.25	338.0	18	52	3				20 26	PP
CAPE HALLETT	123.58	183.6	19	51	59				23 44	PPP

MIRNY	134.54	214.1	19	15	2								
BYRD STATION	135.49	167.5	19	17	3							24	8 SKP
BROKEN HILL	136.69	317.9	19	14A	-3								
BANDEIRA	142.11	339.0	19	26K	-1								
MAWSON	146.06	217.6	19	25	-8								
KIMBERLEY	150.82	311.3	19	43	2								

SEPTEMBER 1 4.H 52.M 14.S EPICENTRE -15.81 168.11 DEPTH= 238.KM

A=-0.94201 B= 0.19829 C=-0.27073 D= 0.2060 E= 0.9786
G= 0.2649 H=-0.0558 K=-0.9627 HT= 5.6

DEPTH OF FOCUS= 0.032R

SE= 1.55

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
KOUMAC	5.97	217.1	1	28K	0								
NOUMEA	6.65	193.4	1	38K	1	2	52	-1					
SUVA	10.14	104.7	2	21	-1	4	28	15					
HONIARA	10.18	307.6	2	23	1	4	16	3					
BRISBANE	18.31	228.5	3	59	0	7	13	2					
RAOUL ISLAND	18.56	138.5	3	59	-2	7	30	14					
RABAUL	19.46	304.7	4	8	-3								
APIA	19.54	86.8	4	13K	2								
ONERAHI	20.65	165.4	4	26	3	8	5	11				8	36
CHARTERS TS.	21.22	255.2	4	29K	1	8	10	6					
KARAPIRO	22.99	164.8	4	46	1	8	53	18				11	41 SCP
RIVERVIEW	23.58	217.4	4	51K	0	8	48	3				10	32
TARATA	23.93	167.9	4	55	1								
CHATEAU	24.20	165.8	4	56	-1	8	57	2					
TUAI	24.24	162.6	4	56A	-1	8	59	3				11	43 SCP
CANBERRA	25.89	217.8	5	12	0	9	24	1	5	57	6	7	PP
WELLINGTON	26.03	168.5	5	12	-1	9	23	-2			10	12	*SS
KAIMATA	26.77	174.6				9	39	2					
TOOLANGI	29.49	218.4	5	43K	-1	10	20	0	6	30	6	48	PP
ROXBURGH	29.60	178.3	5	48	3	10	24	2	6	39	12	4	
SAVANNAH	31.50	210.8	6	1	-1								
TARRALEAH	32.29	210.8	6	9	0						8	51	
ADELAIDE	32.51	228.6	6	10K	-1	11	6	-1			12	38	PCS
MACQUARIE I.	39.26	188.4	7	7	0								
HONOLULU	49.59	42.9	8	29	0	15	20	2					
MUNDARING	49.65	241.4	8	29K	-1								
KIPAPA	49.72	42.9	8	30	0								
PERTH	49.97	241.4	8	32	0	15	22	-1			26	30	SSS
HAWAII V.OB.	50.23	47.1	8	34	0								
MANILA	55.47	300.7	9	13	1						15	36	
ABUYAMA	59.12	329.0	9	37	-1								
MATUSIRO	59.23	332.1	9	38	-1						10	31	PCP
LEMBANG	59.81	271.2	9	42	-1	17	35	1					
MIZUSAWA	60.19	336.0	9	46A	1	17	40	2					
DJAKARTA	60.74	271.7	9	58	9	17	46	1					
SCOTT BASE	62.07	180.3	9	57	-1	18	7	5					
WILKES	62.88	202.5	10	1	-2	18	7	-5			11	17	
ZO-SF	64.87	316.2	10	14A	-2	18	36	0			11	9	*SP
NANKING	67.07	315.6	10	30A	0						11	25	*SP
MIRNY	69.69	204.4	10	45	-1	19	34	0			13	28	PP
CHANGCHUN	71.07	328.7	10	54A	0	19	51	1			11	51	*SP
BYRD STATION	71.49	169.9	10	55	-2						11	32	
PEKING	73.61	320.9	11	8	-1	20	19	1			12	5	*SP
SOUTH POLE	74.29	180.0	11	12	-1	20	26	0					
SIAN	75.12	312.6	11	18A	0						12	15	*SP
KUNMING	75.56	301.7	11	21A	1	20	43	3			12	17	*SP
PAOTOW	77.75	318.6	11	33	1	21	8	5			12	26	*SP
PORT BLAIR	79.43	285.4	11	42	1	21	25	4					
LANCHOW	79.64	312.1	11	43A	0	21	27	4			12	42	*SP
MAWSON	81.19	202.0	11	48	-3						21	39	
CHITTAGONG	83.76	295.2	12	6A	2	22	7	2	13	4	12	11	PCP
UKIAH	84.13	46.7	12	9	3				13	8	15	25	
CALISTOGA	84.37	47.4	12	6A	-1								
LICK	84.50	48.9	12	8A	0						13	6	
PRIEST	84.73	50.3	12	10A	1								
SHILLONG	84.80	298.2	12	9A	0	22	8	-7					
MINERAL	85.78	46.2	12	14A	0						13	13	
PASADENA	85.84	53.0	12	13	-1				13	11	15	36	*SP
RENO	86.71	47.5	12	18A	0								

CALCUTTA	86.83	294.3				22 21	-13				
HOWRAH	86.88	294.3	12	17	-2	22 39	4				
LHASA	86.89	301.8	12	20A	1					13 20	*SP
COLLEGE	87.10	17.3	12	19	-1	22 34	-3	16 13		38 0	PKPPKP
VICTORIA	88.13	38.2	12	25A	0						
SEATTLE	88.42	39.3	12	9	-17						
BOULDER CITY	89.05	52.2	12	30	1			13 29		16 3	PP
CHATRA	89.21	298.1	12	30	0	22 34	-22				
EUREKA	89.44	48.7	12	32	1			13 31		15 34	PP
BOKARO	89.48	294.8								22 37	
VISHAKHAPTNM	89.94	288.3	12	33K	-1	22 39	-24			18 59	
BLUE MTS.	90.47	43.3	12	36A	0						
PENTICTON	90.74	38.6	12	37A	0			13 37			
TUCSON	90.97	56.8	12	39	1			13 42		16 21	PP
TUCSON TELE.	91.09	56.8	12	39	0						
MADRAS	91.53	283.0	12	42K	1	22 52	-25			24 33	
GLEN CANYON	91.84	52.2	12	43	1			13 43			
DUGWAY	91.97	48.8	12	43A	0						
SALT LAKE C.	92.84	48.5	12	47	0			13 47		16 33	PP
PRICE	93.24	49.9	12	49A	0						
HUNGRY HORSE	93.82	40.8	12	49	-2					15 4	
BANFF	93.86	37.8	13	51	59						
BUTTE	94.00	43.3	12	51	-1	23 4	-34			16 38	PP
HYDERABAD	94.31	286.8								23 3	
FLAMING GRGE	94.67	48.9	12	55	0			13 55			
BOZEMAN	94.91	44.0	12	57	1			13 55		16 47	PP
DEHRA DUN	97.87	299.2	13	7	-3	23 22	-1				
NEW DELHI	98.18	297.3	13	6A	-5	23 19	-6			18 0	
LUBBOCK	98.60	57.6								17 12	
POONA	98.82	286.8	13	13	-1	23 28	0			24 21	
BOMBAY	99.86	286.9	13	19	0	23 29	-4			24 26	
WICHITA MTS.	101.48	57.1	13	25	-1	23 42	1	14 25		17 35	PP
TULSA	103.95	56.3	13	36	-1	23 54	2			29 6	PKKP
SANTA LUCIA	105.61	132.1	18	5	777						
QUETTA	107.27	297.2	13	52A	777	24 12	5	14 52		29 24	PPS
DUBUQUE	108.70	50.0	18	1K	777						
ALERT	110.43	6.2	18	3	-1						
HUANCAYO	111.40	110.0	18	9	3						
TANANARIVE	112.09	241.6	18	12	5					18 59	PP
COLUMBIA	115.81	69.6	18	14	0						
CHINCHINA	116.60	92.3	18	14	-2	24 44	0			19 26	PP
CHAPEL HILL	117.48	57.5	18	17	-1						
BOGOTA	118.00	93.2	18	20	1						
HOPE	118.18	77.8								19 44	
PENNSYLVANIA	118.27	51.9	18	4	-15						
GALERAZAMBA	118.30	86.1				24 57	7			19 45	PP
FUQUENE	118.55	92.4								19 49	PP
SHIRAZ	119.69	295.4	18	22A	0	24 56	1			20 0	PP
TEHERAN	120.64	302.4	18	25	1					19 40	PP
BREBEUF	120.87	46.2	18	23A	-1					19 54	PP
KEVO	120.97	345.2	18	23A	-1			19 28			
PALISADES	121.25	51.4	18	25	0						
SODANKYLA	122.76	343.3	18	26	-2					28 21	PKKP
SCHEFFERVLLE	122.76	34.3	18	26	-2						
TROMSOE	122.89	347.7	18	28	0						
KIRUNA	124.00	345.8	18	29A	-1					28 16	PKKP
KAJAANI	124.69	340.1	18	31A	-1			19 33		28 14	PKKP
SCORESBY SD.	125.00	4.1	18	31	-1						
CARACAS	126.26	88.5	18	35A	0					20 30	PP
BULAWAYO	126.52	229.4	18	36	1						
HALIFAX	127.99	45.3	18	38A	0						
NURMIJARVI	128.16	338.0	18	38A	0	25 21	-2	19 40		21 35	SKP
SAN JUAN	128.25	78.9	18	38	0	25 20	-1			20 45	PP
HELSINKI	128.28	337.5	18	49	1			19 54		21 45	SKP
SKALSTUGAN	129.42	346.3	18	40A	-1					21 39	SKP
BERMUDA	129.56	60.9	18	38	-3					21 37	
BROKEN HILL	130.06	235.0	18	31	-11						
ADDIS ABABA	130.17	268.5	18	47A	5					21 42	
UPPSALA	131.04	340.7	18	43	-1					21 45	SKP
ST. KITTS	131.36	80.7	18	44	0						
TRINIDAD	131.61	89.7	18	45	0					21 47	
FORT FRANCE	132.55	84.4	18	47	0					21 14	PP
KSARA	133.52	301.8	18	50	2			19 53		21 56	PP
JERUSALEM	134.42	299.1	18	52	2					22 0	PP
GOTEBORG	134.51	342.3	18	48	-2					21 55	SKP
KARLSKRONA	134.61	338.7	18	48	-2					21 55	SKP
WARSAW	135.28	331.6	18	52A	0					24 39	PPP
LWIRO	135.96	249.6	18	43K	-10					21 43	

COPENHAGEN	136.05	340.3	18	54	1							
ISTANBUL UN.	136.69	313.8	18	54	0							
KRAKOW	137.25	330.0	18	56	1					21	44	PP
RACIBORZ	138.05	331.1	18	59	2					22	39	PKS
COLLMBERG	139.37	336.1	18	51	-8					22	12	PP
BUDAPEST	139.39	327.6								22	12	
HALLE	139.62	337.1	18	51	-9					19	1	PKP2
SOFIA	139.70	318.9	19	4	4					22	25	
PRUHONICE	139.75	333.6	18	59	-1					22	15	PP
BRATISLAVA	139.89	329.8	18	59	-1	20	7			22	20	PP
VIENNA-H.	140.19	330.4	18	55	-6					22	3	PP
JENA	140.21	336.8	18	53	-8	20	7			22	3	PP
WITTEVEN	140.27	342.4	19	2	1					22	6	PP
BELGRADE	140.27	323.4	19	4	3					22	15	PP
DURHAM	140.31	350.7	20	1	0					22	13	PP
CHEB	140.57	335.4	19	1	-1					22	12	PP
KASPERSKE H.	140.81	333.5	18	56	-6	20	10			22	16	PP
ATHENS	141.67	312.1	18	58	-6							
BENSBERG	141.73	340.5	18	58	-6	19	58			22	18	PP
FELDBERG	141.94	338.8	19	7A	3					22	23	PP
ZAGREB	142.06	327.9	19	10	6							
HEIDELBERG	142.53	337.8	19	1	-4							
LJUBLJANA	142.63	329.3	19	2	-3	20	7			22	21	PP
STUTTGART	142.84	336.7	19	2	-4					22	21	PP
TURINGEN	143.11	336.7	19	4	-2							
KEW	143.24	347.9	19	3	-3	20	10			22	16	PP
DOURBES	143.28	342.2	19	5	-1					22	21	PP
EBINGEN	143.44	336.4	19	4	-3							
RAVENSBURG	143.51	335.4	19	4	-3					22	22	PP
STRASBOURG	143.56	337.9	19	5	-2	20	5			22	23	PP
CHUR	144.29	334.6	19	8	0					28	53	
PADOVA	144.37	330.8								28	56	SKKS
BASLE	144.50	337.1	19	8	0							
PARIS	145.04	343.4	19	12	3					20	26	PP
LUANDA	145.09	227.1	19	11A	2	20	12					
NEUCHATEL	145.18	337.2	19	11	1							
BESANCON	145.32	338.4	19	10	0							
AQUILA	145.79	325.7	19	11	0					22	2	PP
FOLINIERE	145.82	346.5	19	11	0							
FLORENCE X.	145.88	329.5	19	15A	4					22	2	PP
GARCHY	146.26	341.6	19	14	3	20	15			22	20	PP
ROME	146.59	326.0	19	12A	0	20	15			22	2	PP
MESSINA	147.13	318.0	19	12	-1							
ISOLA	147.48	334.3	19	14	1							
CLERMONT-FD.	147.58	340.2	19	14	1	20	14					
MONACO	147.68	333.4	19	13	-1							
BANGUI	147.95	252.5	19	14	0	20	9					
BAGNERES	150.94	341.7	19	18	0	20	20	20	5			
SERRA PILAR	154.61	354.2	19	25K	1					23	27	PP
TOLEDO	155.06	345.6	19	25	1	20	26			23	21	PP
COIMBRA	155.51	353.6	19	24	-1					23	29	PP
LISBON	157.05	354.5	19	28K	1					20	0	PKP2
GRANADA	157.48	342.5	19	27A	0					23	48	PP
BENI ABBES	163.20	329.6	19	34	0	20	38			22	42	PP

SEPTEMBER 1 7.H 51.M 8.S EPICENTRE 51.32-179.86 DEPTH= 46.KM

A=-0.62757 B=-0.00152 C= 0.77856 D=-0.0024 E= 1.0000
G=-0.7786 H=-0.0019 K=-0.6276 HT= -5.9

DEPTH OF FOCUS= 0.002R

SE= 2.01

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PETROPAVLOVK	13.29	285.8	3	9	0								
MAGADAN	18.44	307.9	4	14A	0								
COLLEGE	21.38	38.4	4	45	-1	8	44	8			16	8	SCS
UGLEGORSK	24.29	279.8	5	16A	2								
Y.-SAKHLINSK	24.66	274.8	5	19A	1	9	40	6					
YAKUTSK	28.94	311.3	5	58A	1	10	46	3					
TUKUBASAN	32.16	257.8	6	24K	-2	11	33	-1			8	1	PPP
MATUSIRO	33.12	260.0	6	34K	0	11	52	3					
VLADIVOSTOK	33.25	275.0	6	34A	-1	11	55	4					
MOULD BAY	33.92	21.9	6	42A	1	12	22	21			9	18	PCP

KIPAPA	34.37	142.1	6 44	-1						
HONOLULU	34.44	142.3	6 44	-2	12	12	2		7	52 PP
VICTORIA	35.69	71.8	6 57A	1						
ABUYAMA	35.83	260.3	6 58A	1						
SEATTLE	36.75	72.5	7 7	2						
CHANGCHUN	36.98	280.4	7 6A	-1	12	49	0			
HAWAII V.OB.	37.25	139.5	7 9	0	13	0	7			
LONGMIRE	37.47	73.5	7 8	-3					15	48
PENTICTON	37.57	68.7	7 13A	1						
BANFF	39.09	64.1	7 24A	-1						
SPOKANE	39.67	69.8	7 28	-1						
RESOLUTE	40.08	24.3	7 34	1						
UKIAH	40.73	84.6	7 42	4				7 57		
MINERAL	41.03	82.0	7 42A	1						
BLUE MTS.	41.15	73.6	7 42A	0	13	56	5		13	27 SCP
HUNGRY HORSE	41.29	67.3	7 43	0	13	51	-3			
CALISTOGA	41.43	84.7	7 45A	1						
BERKELEY	42.09	85.4	7 56K	7	14	12	7			
RENO	42.61	81.7	7 54A	0						
ALERT	42.81	9.9	7 56A	1						
LICK	42.81	85.6	7 57A	2						
BUTTE	43.34	69.5	8 0	0	14	23	-1	8 16	18	7 SCS
PRIEST	44.17	86.2	8 8K	2						
BOZEMAN	44.43	69.1	8 8	0	14	43	4	8 25	18	9 SCS
PEKING	44.74	281.4	8 11A	0	14	48	4			
IRKUTSK	44.87	302.4	8 12A	0						
EUREKA	45.03	79.2	8 14	1	14	52	4			
DUGWAY	46.53	76.4	8 26A	1	15	10	1		18	21
SALT LAKE C.	46.77	75.1	8 27	0						
PASADENA	47.01	86.5	8 30	1	15	20	4			
NORD	47.02	3.3	8 29	0						
ZO-SE	47.33	268.3	8 31	0						
BOULDER CITY	47.91	82.2	8 36	0	15	34	5			
PRICE	48.11	75.7	8 38A	0						
PAOTOW	48.15	286.0	8 39	1	15	39	7			
FLAMING GRGE	48.16	73.4	8 37	-1						
GLEN CANYON	49.29	79.0	8 49	2						
RAPID CITY	49.90	66.5	8 51	0						
LARAMIE	50.20	70.7	8 53	-1					16	3
GOLDEN	51.33	72.2	9 3	1					16	22
TUCSON	52.86	83.0	9 14	0						
TUCSON TELE.	52.87	82.8	9 13	-1						
LANCHOW	54.79	285.5	9 28A	0						
MANHATTEN	56.83	67.2	9 42	-1	17	31	0			
SCORESBY SD.	57.47	8.6	9 46	-1						
LUBBOCK	57.49	75.5	9 47	0	17	44	5			
KEVO	57.65	349.3	9 48A	0	17	44	3		11	28 PP
DUBUQUE	57.94	60.7	9 49	-1						
SEMIPALATNSK	58.04	312.0	9 52A	1	17	50	3			
TROMSOE	58.58	352.4	9 54	-1						
WICHITA MTS.	58.68	72.4	9 55	0	17	57	2	10 6	19	47 SCS
APATITY	58.84	345.7	9 54A	-3	17	56	-1		18	20 PS
TULSA	59.52	69.5	10 1	0	18	9	3			
SODANKYLA	59.96	348.5	10 3A	-1					39	27 PKPPKP
CHICAGO JSA.	60.00	59.5	10 2	-3						
KIRUNA	60.21	351.3	10 5A	-1	18	6	-9			
RABAUL	60.25	212.6	10 4	-2					18	18
ROLLA	60.40	65.4	10 6A	-1	18	15	-2			
SCHEFFERVLLE	60.49	37.7	10 7A	-1						
FLORISSANT	60.65	63.7	10 8	-1	18	22	2			
ST. LOUIS 1	60.84	63.7	10 9	-1	18	22	-1			
SVERDLOVSK	61.29	326.9	10 14K	1	18	33	4			
BLOOMINGTON	62.52	61.0	10 18	-4	18	44	0			
LONDON ONT.	62.61	54.7	10 21A	-1						
KAJAANI	62.95	346.8	10 24A	0					39	28 PKPPKP
HONIARA	62.97	202.5	10 20	-5	18	52	2			
KUNMING	63.08	277.1	10 24	-1	18	54	3			
CLEVELAND	63.55	56.1	10 50	22	19	13	16			
ALMATA-2	64.51	307.9	10 35K	0						
BREBEUF	64.53	48.4	10 33A	-2	19	8	-1		24	7 SS
SKALSTUGAN	65.05	354.0	10 37A	-1						
PENNSYLVANIA	65.93	54.4	10 43	-1						
FRUNSE	66.18	309.2	10 47A	2	19	36	7			
PULKOVO	66.61	343.9	10 46A	-2						
NURMIJARVI	66.79	347.1	10 48A	-1						
LHASA	66.94	288.9	10 52A	2	19	45	7			
HELSINKI	67.08	346.8	10 51A	0						
WASHINGTON	67.76	55.3	10 40	-15						
PALISADES	67.77	51.8	10 55A	0	19	51	3			

FORDHAM	67.90	51.9	10	55	-1	19	50	0				
UPPSALA	68.29	350.6	10	57A	-2	19	54	-1				
MOSCOW	68.88	338.3	11	3A	1							
CHAPEL HILL	68.95	58.7	11	2	-1							
SUVA	69.18	181.7				20	7	2				
COLUMBIA	69.31	61.3	11	5	0	20	10	3				
SHILLONG	69.43	285.4	11	5A	-1	20	10	2				
HALIFAX	69.71	43.1	11	7	0							
TASHKENT	69.89	311.4	11	10A	2							
GOTEBORG	70.91	353.3	11	13A	-2							
CHATRA	71.31	289.6	11	17	0							
KHOROG	71.80	307.5	11	22	2	20	42	6				
CHITTAGONG	71.85	283.2	11	22	2	20	40	4	11	30	11 39	PCP
ABERDEEN	71.86	1.3				20	40	4			25 45	SS
KARLSKRONA	72.13	351.0	11	19A	-3							
DUZHANBE	72.29	310.0	11	25A	2							
COPENHAGEN	72.88	352.7	11	26	0							
DEHRA DUN	73.89	298.3	11	30	-2	20	59	0				
DURHAM	74.27	1.0	11	35K	1	21	9	5				
BOKARO	74.38	288.5	11	37A	2	21	12	7				
WARSAK DAM	74.51	305.2	11	36A	0							
LAHORE	74.96	301.7	11	39	1							
WARSAW	75.33	346.9	11	40K	-1	21	15	0			22 3	PS
NEW DELHI	75.70	297.8	11	40A	-3	21	19	0			26 23	SS
CHARTERS TS.	77.06	212.5	11	49	-1							
HALLE	77.07	352.5	11	51	1	21	35	1				
COLLMBERG	77.18	351.8	11	51A	0						12 5	PCP
ASHKABAD	77.56	316.5	11	53	0	21	46	6				
KEW	77.59	0.3	11	53	0	21	43	3				
KRAKOW	77.61	347.1	11	55	2	22	4	24				
VANNOVSKAYA	77.67	316.7	11	54	0							
JENA	77.67	352.6	11	53	-1				12	28	15 4	PP
BENSBERG	77.93	355.5	11	55A	0				12	10	12 2	PCP
PRUHONICE	78.34	350.6	11	58	1	22	6	18			15 6	PP
SKALNATE PL.	78.42	346.7	12	0	2						15 7	PP
CHEB	78.44	352.0	11	56	-2						13 46	
FELDBERG	78.59	354.6	12	12	13							
UZHGOROD	78.64	345.2	12	0	1							
DOURBES	78.89	357.1	12	1	1							
KISHINEV	78.98	340.4	12	1A	0	22	7	12				
BERMUDA	79.11	51.2	12	0	-2	21	58	2				
KASPERSKE H.	79.27	351.1	12	3A	0						13 20	
HEIDELBERG	79.39	354.3	12	3	0							
TIFLIS	79.51	327.6	12	6A	2							
SIMFEROPOL	79.71	336.2	12	5A	0	22	7	5				
BRATISLAVA	79.83	348.6	12	6A	0	22	23	19			15 27	PP
VIENNA-H.	79.84	349.1	12	6	0							
QUETTA	79.90	306.1	12	7A	1	22	10	6	12	20	15 8	PP
STUTTGART	79.99	353.9	12	6	0							
PARIS	80.23	358.4	12	8A	0	22	3	-5				
STRASBOURG	80.27	354.9	12	8	0	22	10	2			26 10	SS
RAVENSBURG	80.95	353.5	12	12	1							
BASLE	81.33	354.9	12	2	-11	22	38	19				
BESANCON	81.69	356.0	12	16	1							
GARCHY	81.75	358.0	12	16	0						12 19	PCP
BRISBANE	81.99	204.4	12	27	10	22	32	6				
LJUBLJANA	82.22	349.9	12	18A	0						12 52	
ZAGREB	82.28	348.9	12	12	-6							
TEHERAN	82.35	320.2	12	20	1	22	30	0				
BELGRADE	82.64	345.6	12	21A	1	22	40	7			29 18	
PADOVA	83.12	351.7				23	32	55				
CLERMONT-FD.	83.26	357.9	12	25A	2							
HYDERABAD	83.66	289.8				22	40	-3				
SARAJEVO	83.87	346.8	11	26	-60							
HOPE	84.05	68.7	12	29	2							
KARACHI	84.18	302.8	12	26	-2							
ISTANBUL UN.	84.64	338.5	12	31A	1							
ISOLA	84.70	355.0	12	33	2							
FLORENCE X.	84.79	351.9	12	40	9	23	4	10				
MONACO	85.12	354.7	12	33	0							
POONA	85.47	294.0				23	4	3				
BOMBAY	85.77	295.0	12	37A	1	23	3	-1				
BAGNERES	85.99	360.0	12	36	-1							
AQUILA	86.00	350.2	12	38	1	23	2	-4			16 2	PP
ROME	86.54	350.8	12	40A	0	23	32	21			23 3	SKS
SHIRAZ	87.15	316.3	12	43A	0	23	2	-15			16 7	PP
SERRA PILAR	87.62	6.6	12	46A	1							
RIVERVIEW	88.54	203.8	12	50A	1				13	6		

ATHENS	88.71	341.6	12	50	0	23	16	-16				
KARAPIRO	88.96	183.6	12	51A	0				13	4		
TOLEDO	89.11	3.2	12	52	3	23	26	-9			16	22 PP
KSARA	89.58	330.9	12	54A	0	23	48	8			16	23 PP
SAN JUAN	89.77	60.4	12	56	1							
MESSINA	89.84	347.9	12	52	-3	23	34	-8			13	42
CANBERRA	90.51	205.0	12	59	0							
GALERAZAMBA	90.61	72.0									24	0 SKKS
JERUSALEM	91.68	330.7	13	6	2							
WELLINGTON	92.34	184.0									25	57 *SP
TOOLANGI	93.58	206.9	13	13	0							
ST. CLAUDE	94.08	58.2				24	21	2			17	6 PP
CHINCHINA	94.98	75.8	13	21	2	23	52	-35				
FORT FRANCE	95.45	58.5				24	37	45			17	9 PP
CARACAS	95.71	65.5	13	23	1	23	48	-5				
FUQUENE	95.73	74.0	13	24	2							
BOGOTA	96.20	74.8	13	27	2	24	0	4				
TRINIDAD	98.69	61.0	13	41	5							
BANGUI	122.31	338.0	18	51	1				19	0		
LWIRO	125.49	323.9	18	59	2							
SANTA LUCIA	126.85	99.3	19	0	1							
WILKES	128.62	209.0									22	22 SKP
SCOTT BASE	129.17	183.6	19	3	-1							
MIRNY	134.50	214.1	19	15	1							
BYRD STATION	135.43	167.5	19	17	2							
BROKEN HILL	136.74	317.9	19	17	-1							
SOUTH POLE	141.13	180.0	19	21	-5							
BULAWAYO	141.70	313.7	19	24	-3							
BANDEIRA	142.16	339.0	19	26A	-2							
CHANGALANE	145.13	303.6	19	31A	-2							
MAWSON	146.02	217.6	19	35A	1						20	1 *SPKP
WINDHOEK	148.42	329.0	19	46A	8							
KIMBERLEY	150.86	311.3	19	49A	7							

SEPTEMBER 1 15.H 0.M 58.5 EPICENTRE 25.60 65.22 DEPTH= 0.KM

A= 0.37841 B= 0.81987 C= 0.42967 D= 0.9080 E=-0.4191
G= 0.1801 H= 0.3901 K=-0.9030 HT= 3.2

SE= 3.23

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KARACHI	1.81	114.5	0	31	-1							
QUETTA	4.81	18.1	1	16A	1	2	12	-1				
BOMBAY	9.69	132.0	2	28K	5	4	30	16				
LAHORE	9.96	51.4	2	23	-4							
WARSAK DAM	10.01	31.8	2	27	-1							
POONA	10.65	129.6	2	35K	-2						6	8
NEW DELHI	11.08	71.8	2	39A	-3	4	34	-14				
DEHRA DUN	12.27	64.6	2	59	0	5	5	-12			5	33 SS
KHOROG	13.00	22.8	3	9	1							
HYDERABAD	14.74	120.9	3	24	-7	7	24	68			8	27 SS
TEHERAN	15.60	313.7	3	35	-8	6	52	15				
TASHKENT	16.04	11.1	3	46A	-2						4	5 PPP
VISHAKHAPTNM	18.53	111.4	4	18A	-1	8	3	19			4	40 PP
BOKARO	18.78	91.0	4	21	-1	8	9	19				
FRUNSE	18.84	21.8	4	23A	0						7	57
MADRAS	18.85	128.9	4	22	-1	7	57	6				
KODAIKANAL	19.19	140.6	4	24K	-3							
HOWRAH	21.30	93.3	4	59	9							
CALCUTTA	21.35	93.4	4	57	6	8	59	15			5	27 PP
LHASA	23.21	74.2	5	12	3	9	25	7				
TIFLIS	23.31	318.7	5	10A	0						5	58 PPP
CHITTAGONG	24.50	92.0	5	23	1	9	43	3			5	57 SS
KSARA	26.71	294.8	5	45	3	10	25	8			11	38 SS
JERUSALEM	26.98	290.2	5	47	2							
ADDIS ABABA	30.06	241.5	6	15A	2							
SVERDLOVSK	31.38	355.1	6	24K	0	11	33	1				
SIMFEROPOL	31.62	315.6	6	25A	-1	11	33	-2			7	47 PPP
ESEN BULAK	32.26	41.9	6	33	1	11	39	-6				
ISTANBUL KA.	33.65	306.4	6	42	-2							
LANCHOW	34.55	63.1	6	52	0							
MOSCOW	36.19	333.7	7	6K	0	12	44	-2			8	16
ATHENS	37.09	299.7	7	20	7						7	40
SOFIA	38.20	307.3	7	23	0	13	14	-3				
ULAN-BATOR	39.50	44.7	7	36	2	13	38	1				

IRKUTSK	39.68	37.4	7	36	1					9	10 PP
LWOW	39.87	318.3	7	36	-1					9	13 PP
PAOTOW	39.97	56.7	7	45	?						
BELGRADE	40.71	309.8	7	51	?					9	25 PP
PULKOVO	41.81	334.3	7	52A	-1	14	8	-3		9	29 PP
SKALNATE PL.	41.98	316.1	8	6	12					9	39
KRAKOW	42.44	317.2	7	58	0						
WARSAW	42.53	320.6	7	55	-4	14	19	-3		9	37 PP
RACIBORZ	43.52	316.8	8	6	-2						
MESSINA	43.53	299.3	8	8	1	14	35	-1	8 14	9	46 PP
BRATISLAVA	43.72	313.8	8	16	8					10	1
ZAGREB	44.00	310.3	8	13	3						
VIENNA-H.	44.22	313.8	8	11	-1					13	2 PPS
HELSINKI	44.22	332.4	8	12	0					9	53 PP
NURMIJARVI	44.54	332.7	8	15A	0	14	49	-2		9	58 PP
PEKING	44.59	58.1				14	53	1			
LWIRO	44.82	237.3	8	17K	0						
LJUBLJANA	45.04	310.4	8	18	-1					9	53 PP
AQUILA	45.40	305.1	8	22	0	15	2	-1		19	10 SSS
TRIESTE	45.51	309.7	8	22	-1	15	9	4			
KAJAANI	45.51	338.0	8	22	-1					10	8 PP
PRUHONICE	45.77	315.8	8	24	-1					10	5 PP
ROME	46.06	304.4	8	33	6	15	22	9		18	32 SS
KASPERSKE H.	46.21	314.5	8	27	-1					9	16
APATITY	46.25	343.7	8	27A	-1	15	13	-2			
PADOVA	46.79	309.2	8	38	5					15	2
KARLSKRONA	46.90	324.3	8	30	-4					10	20 PP
COLLMBERG	47.02	317.3	8	34A	-1					10	26 PP
FLORENCE X.	47.08	306.9	8	33	-2	15	14	-13			
UPPSALA	47.29	329.5	8	36A	-1	15	27	-3		10	27 PP
TANANARIVE	47.47	203.0	8	39	1						
HALLE	47.71	317.4	8	39	-1					10	36 PP
JENA	47.82	316.5	8	41	0	15	40	2	8 48	10	30 PP
SODANKYLA	47.99	341.0	8	41K	-1	15	29	-11		10	34 PP
COPENHAGEN	48.43	322.9	8	46	0	15	42	-4			
STUTTGART	48.95	313.4	8	48	-2					11	48 PPP
GOTEBORG	49.26	325.4	8	48A	-4					10	45 PP
BANGUI	49.37	252.7	8	51	-2	15	55	-5			
KEVO	49.48	343.5	8	53	-1						
MONACO	49.85	306.6	8	55	-2						
STRASBOURG	49.92	313.0	8	55	-2						
ISOLA	50.13	307.2	8	58	-1						
KIRUNA	50.15	339.6	8	58A	-1	15	8	-2		10	54 PP
RENSBERG	50.38	316.0	9	2	0					11	10 PP
BESANCON	51.02	311.1	9	4	-1						
SKALSTUGAN	51.12	332.7	9	5A	-1						
CHANGCHUN	51.51	53.3	9	15	6						
TROMSOE	51.62	341.2	9	9	-1						
DOURBES	52.12	314.7	9	13	-1						
CLERMONT-FD.	52.95	309.2	9	20K	0						
GARCHY	53.00	311.1	9	19	-1					10	34
PARIS	53.43	313.0	9	22	-2						
BROKEN HILL	53.53	226.1	9	23	-1						
BAGNERES	55.16	305.9	9	34	-2						
KEW	55.32	316.2	9	37A	0	17	20	-1	9 43	19	20 SS
FOLINIERE	55.39	312.9	9	36	-2						
YAKUTSK	55.79	31.0	9	38A	-3	17	24	-3			
DURHAM	56.20	320.1	9	43A	-1	17	31	-2	9 50		
ABERDEEN	56.64	323.0								21	45 SS
BULAWAYO	57.73	221.5	9	53K	-2						
TOLEDO	58.65	302.6	10	59	58				11 7	12	11 PP
GRANADA	58.73	299.4	10	7K	5					22	15 SS
MALAGA	59.44	299.0	10	8	1	18	14	-1		12	26 PP
SERRA PILAR	61.86	304.6	10	28K	5						
COIMBRA	61.91	303.6	10	21	-2				10 29		
MATUSIRO	62.13	60.6	10	19	-6	18	48	-1			
LISBON	62.75	302.1	10	36	7						
Y.-SAKHLINSK	63.44	48.3	10	33	-1						
NORD	63.66	350.7	10	33	-2						
TUKUBASAN	63.69	60.6								26	38 SSS
SCORESBY SD.	65.19	338.3	10	45	0						
KIMBERLEY	66.56	218.4	10	51K	-3						
ALERT	69.31	353.6	11	10	-1						
MOULD BAY	78.37	1.1	12	3K	-1					15	2 PP
COLLEGE	86.26	13.5	12	44	0						
SCHEFFERVLLE	89.96	334.5	13	9	7						
MAWSON	92.93	180.9	13	15	-1						
MIRNY	94.24	169.2	13	21	-1						

PALISADES	103.65	329.4			24	48	4					
BLUE MTS.	109.86	1.9	18	34	777						19	14 PP
EUREKA	115.25	1.0	18	44	1						29	17 PKKP
SOUTH POLE	115.45	180.0	18	43	-1							
TULSA	116.25	342.9									29	27 SPP
WICHITA MTS.	118.08	344.9	18	50	1			18	57		20	1 PP
BYRD STATION	125.45	179.0	19	12	9							

SEPTEMBER 1 19.H 20.M 40.S EPICENTRE 35.58 49.88 DEPTH= 29.KM

A= 0.52531 B= 0.62335 C= 0.57921 D= 0.7647 E=-0.6444
G= 0.3732 H= 0.4429 K=-0.8152 HT= -0.1

SE= 2.40

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
TEHERAN	1.24	82.1	0	23K	2								
LENKORAN	3.29	345.6	0	51	0								
GORIS	4.82	325.3	1	14A	2								
NAKHICHEVAN	5.08	316.7	1	15A	-1								
SHEMAKHA	5.14	349.3	1	20A	3								
KIROVORAD	5.79	332.1	1	26A	0								
KIZYL-ARVAT	6.24	52.7	1	31A	-1								
EREVAN	6.26	318.8	1	32A	-1								
SHIRAZ	6.32	158.6	1	23K	-10								
ASHKABAD	7.20	68.3	1	45	-1								
TIFLIS	7.31	328.6	1	48A	1						3	42	
MAKHACH-KALA	7.61	346.7	1	51A	0						2	39	
GROZNY	8.36	338.8	2	3	1								
SOTCHI	11.19	318.6	2	42A	1	4	41	-5			6	34	
KSARA	11.66	265.4	2	45	-2	4	55	-2					
JERUSALEM	12.78	256.9	3	4	2								
SIMFEROPOL	15.22	312.7	3	34A	0						6	13	
QUETTA	15.31	105.8	3	37A	2	6	42	17					
TASHKENT	16.23	63.5	3	46A	-1	6	53	7			4	16	
ISTANBUL KA.	17.21	294.8	4	0	0								
ISTANBUL UN.	17.26	294.7	4	0	0								
KHOROG	17.50	77.4	4	4	1						4	30	PPP
WARSAK DAM	17.87	88.8	4	6	-2								
KARACHI	18.27	121.2	4	9	-4								
KISHINEV	19.45	312.4	4	26A	-1	8	1	2					
FRUNSE	20.45	61.8	4	38A	0	8	28	8					
LAHORE	20.75	94.2	4	39A	-2								
ATHENS	21.07	284.3	4	44A	0	8	41	9			8	17	
SOFIA	21.73	297.1	4	52	1	9	0	16			5	19	PP
MOSCOW	21.83	341.2	4	53A	1	8	50	4					
SVERDLOVSK	22.47	15.6	4	58K	0								
SKOPJE	23.01	294.7	4	48	-15	9	20	12			5	12	PP
LWOW	23.58	315.1	5	10A	1								
TIMISOARA	23.88	304.0	5	13	1	9	16	-7					
UZHGOROD	24.11	311.2	5	16	2								
NEW DELHI	24.13	99.1	5	14A	0	9	33	6			5	48	PP
DEHRA DUN	24.17	94.5	5	16	1	9	40	12			6	0	PP
BELGRADE	24.19	301.4	5	16A	1	9	42	14			5	24	PPP
TITOGRAD	24.67	295.4	5	18	-1	10	1	25			5	40	PPP
SZEGED	24.74	304.7									5	21	PP
SARAJEVO	25.45	298.6	5	27	0	10	1	12					
SKALNATE PL.	25.57	311.3	5	29	1						6	26	PP
KALOCSA	25.59	304.8	5	30	2						12	20	PCS
BUDAPEST	25.81	306.9	5	31	1								
TARANTO	26.07	290.6	5	34	1	10	4	4					
KRAKOW	26.09	313.0	5	33	0								
BOMBAY	26.21	123.3	5	36A	2	10	5	3			6	7	PP
WARSAW	26.39	318.1	5	36A	1								
HURBANOVO	26.45	307.5	6	0	24	10	42	36			7	2	PP
SEMIPALATNSK	26.47	46.5	5	40A	4						10	43	
SEHORE	26.64	110.2	5	41	3	10	34	25			6	29	PP
RACIBORZ	27.14	312.1	5	43	1						6	30	PP
POONA	27.17	122.4	5	47A	4	10	39	21			6	33	PP
BRATISLAVA	27.24	307.6	5	43A	0	9	57	-22			8	51	PCP
PULKOVO	27.34	338.4	5	44A	0						6	36	PP
ZAGREB	27.48	302.3	5	46	1	10	45	22					
MESSINA	27.49	285.7	5	46	0	10	40	17			6	29	PP
VIENNA-H.	27.73	307.5	5	48A	1	10	32	6			6	37	PP
ADDIS ABABA	28.31	203.7	6	7A	14	11	25	49					
LJUBLJANA	28.52	302.4	5	55A	0	10	38	-1			6	55	PP

TRIESTE	29.00	301.4	5	59A	0	10	47	0			6	57 PP
AQUILA	29.00	294.6	5	59A	0	11	0	13	6	20	13	10 SS
PRUHONICE	29.34	310.4	6	3A	1	11	6	13			7	11 PP
HELSINKI	29.39	334.6	6	3A	0							
PRAGUE	29.44	310.5	6	5	2	11	7	13			7	7 PP
ROME	29.68	293.7	6	4A	-1	11	12	14	6	20	7	14 PP
KASPERSKE H.	29.74	308.4	6	5A	-1							
NURMIJARVI	29.75	334.9	6	5A	-1							
PADOVA	30.28	300.7	6	12A	1	11	18	11	6	29	7	20 PP
FLORENCE X.	30.62	297.4	6	4A	-10	11	12	-1	6	20		
COLLMBERG	30.66	312.4	6	14A	0	11	27	14				
CHEB	30.72	309.9	6	12	-2	11	24	10			7	16 PP
KARLSKRONA	31.03	322.3	6	11A	-6							
HYDERABAD	31.14	118.0	6	13A	-5	11	33	12			7	27 PP
HALLE	31.35	312.4	6	20	0	11	41	17				
JENA	31.42	311.2	6	20	-1	11	38	13			7	29 PPP
KAJAANI	31.56	341.5	6	21A	-1							
UPPSALA	32.00	329.5	6	25A	-1	11	32	-2				
CHIAVARI	32.02	298.3	6	48	22	11	18	-17				
CHUR	32.04	303.1	6	25A	-1	11	34	-1				
RAVENSBURG	32.09	304.9	6	26	-1							
PAVIA	32.17	299.9	6	26A	-1	11	48	11			7	34 PP
COPENHAGEN	32.44	320.1	6	30	0	11	58	17				
STUTTGART	32.45	306.6	6	29A	-1	11	48	7			14	3
TUBINGEN	32.56	306.2	6	29A	-2							
EBINGEN	32.58	305.5	6	30	-1							
CUGLIERI	32.71	290.6	6	32	0	12	5	19				
CHATRA	32.91	94.8	6	35	1	11	53	4				
HEIDELBERG	32.92	307.7	6	33A	-1							
BOKARO	33.15	100.8	6	38A	2	11	55	3				
APATITY	33.38	348.6	6	38A	0	11	59	3	6	43	7	44 PP
MONACO	33.38	297.2	6	37	-1	12	13	17				
STRASBOURG	33.42	306.1	6	37	-1	12	6	10			7	43 PP
BASLE	33.43	304.1	6	36A	-2	12	7	10				
GOTEBORG	33.49	323.3	6	33A	-6	11	40	-18				
ISOLA	33.65	298.0	6	40	0	12	0	0				
BENSBERG	34.16	310.2	6	45A	1	12	20	12			7	54 PP
BESANCON	34.50	303.5	6	46	-1						7	46 PP
SODANKYLA	34.52	344.4	6	47A	-1							
VISHAKHAPTNM	34.54	112.2	6	48K	0	12	34	20			8	16 PP
WITTEVEEN	34.82	313.3	6	50	0							
LHASA	34.99	87.9	6	54A	2	12	36	15				
MADRAS	35.37	121.8	6	57A	2	12	43	16			8	23 PP
KONGSBERG	35.42	325.5	6	55	0							
KODAIKANAL	35.58	128.4	6	56K	-1	12	44	14			8	20 PP
DE BILT	35.58	311.8	6	58A	1	12	40	10			8	10 PP
DOURBES	35.66	308.3	6	58	1	12	27	-4				
HOWRAH	35.80	100.7	6	54	-4	12	25	-8				
CALCUTTA	35.85	100.7	6	59A	0	12	46	12				
UCCLE	35.90	309.4	7	0	1							
ESEN BULAK	36.16	58.1	7	3A	1							
SKALSTUGAN	36.20	332.5	7	1A	-1	12	37	-2				
KIRUNA	36.36	341.7	7	4A	1	12	33	-9			8	27 PP
CLERMONT-FD.	36.43	300.8	7	4A	0	12	51	8				
KEVO	36.45	346.8	7	4A	0							
GARCHY	36.48	303.4	7	3A	-1						7	49 PP
PARIS	36.92	305.9	7	7A	-1	13	1	10			8	29 PP
SHILLONG	37.26	93.7	7	11	0	13	3	7			8	34 PP
BERGEN	37.72	325.3	7	15	0	13	0	-3			8	35 PP
TROMSOE	38.06	343.0	7	17	0							
CHITTAGONG	38.70	98.3	7	24A	1	13	24	6				
TORTOSA	38.74	293.0	7	23	0							
KEW	38.89	310.1	7	25A	1	13	30	9			9	2 PP
TOCKLAI	39.13	90.2	7	27	1	13	20	-4			9	1 PP
ALICANTE	39.93	289.4	7	31	-2	13	32	-4			9	4 PP
JERSEY	39.96	306.4	7	33	0						12	21
DURHAM	39.97	315.1	7	34K	1	13	37	0			9	8 PP
ABERDEEN	40.60	318.7	7	40	1	14	19	33			9	13 PP
IRKUTSK	41.56	48.9	7	48A	2						9	33 PP
ALMERIA	41.82	287.7	7	48A	-1	13	42	-22				
TOLEDO	42.33	292.5	7	52A	-1	14	16	4			9	41 PP
BANGUI	42.37	230.1	7	53	0	14	9	-3				
LWIRO	42.48	212.1	7	56A	2	14	33	19				
GRANADA	42.61	288.5	7	52K	-3	14	27	11			9	52 PP
RATHFARNHAM	42.63	312.6	7	58	3	14	31	15				
LANCHOW	43.27	72.9	8	3A	3							
MALAGA	43.35	288.1	8	0A	-1	14	27	0			9	52 PP
ULAN-BATOR	43.36	55.3	7	3A	-58							
BENI ABBES	43.66	278.2	8	4	0	14	34	3				

CHENGTU	45.13	80.2	8	10A	-5					
KHEYS	45.27	1.9	8	18A	1				18	20 SS
PORT BLAIR	45.42	110.7	8	19A	1				10	19 PP
SERRA PILAR	45.45	295.4	8	18K	0	14	57	0	10	3 PP
COIMBRA	45.54	294.1	8	19A	0	15	5	7	10	7 PP
KUNMING	46.32	87.8	8	26A	1	15	21	12		
LISBON	46.45	292.3	8	26A	0	15	32	21	10	45 PP
AVERROES	46.74	284.6	8	27	-1					
PAOTOW	46.82	65.0	8	30A	1	15	33	17		
SIAN	47.79	73.5	8	37A	1					
SIDA	49.09	327.0	8	49	3					
REYKJAVIK	50.78	327.5	9	1A	2					
SCORESBY SD.	50.88	335.7	9	2	2	16	39	26		
PEKING	51.48	64.0	9	6A	1	16	38	16		
NORD	51.64	350.1	9	6	0	16	27	3		
BROKEN HILL	53.73	206.0	9	22A	1					
TANANARIVE	54.24	182.7	9	28A	3	17	12	13	20	57 SS
YAKUTSK	54.65	34.7	9	27A	-1				17	14 PS
LUANDA	56.09	225.3	9	40A	1	17	32	8	11	48 PP
NANKING	56.28	72.3	9	40A	0	17	41	15		
CHANGCHUN	56.76	56.9	9	43A	0	17	43	10		
HONG KONG	56.91	84.9	9	34	-11					
ALERT	57.76	351.7	9	50	-1	17	52	6		
ZO-SE	58.54	72.3	9	56A	0	18	8	12		
BULAWAYO	58.97	203.4	9	59A	0					
PONTA DELGDA	59.06	296.5	10	0	0	18	5	2	10 10	12 14 PP
ANGRA DO HO.	59.82	298.0	10	13	8				12	27
BANDEIRA	60.99	221.2	10	19A	0	18	32	4	12	32 PP
TAINAN	61.46	81.0							11	2
VLADIVOSTOK	61.49	55.6	10	15A	-1					
TAIPEI	61.53	78.4	10	30	14	18	57	22		
THULE	61.85	346.3	10	16A	-3				12	44 PP
HWALIEN	62.12	79.4	10	22	5				15	51
TAWU	62.33	81.3	10	24	2	19	4	19		
HENGCHUN	62.38	81.7	10	40	18					
HUKUE	63.70	67.4	10	31	0	19	15	13		
CHANGALANE	63.76	197.7	10	27A	-4	19	14	11	10 37	19 34 PSS
HUKUOKA	64.46	65.9	10	39	3	19	29	18	13	26 PP
NAGASAKI	64.47	66.9	10	36A	0	19	25	14		
SAGA	64.55	66.2	10	39	3					
SIMONOSEKI	64.70	65.3	10	40	3					
KUMAMOTO	65.04	66.5	10	43	3	19	28	10		
HAMADA	65.11	63.9	10	39A	-1	19	33	14	30	24
MAGADAN	65.18	33.4	10	41A	1				14	47 PPP
ASOSAN	65.28	66.2	10	45	4					
SAIGO	65.43	62.1	10	50	8	19	30	7		
KAGOSIMA	65.51	67.8	10	49	2	19	34	16		
OOITA	65.54	65.7	10	42	-1	19	31	7		
MATSUE	65.59	62.9	10	46	3					
HIROSIMA	65.61	64.2	10	43	0	19	31	6		
WINDHOEK	65.64	213.3	10	45K	2					
YONAGO	65.80	62.8	10	43	-1					
YAKUSIMA	66.00	68.9	10	42	-4				20	58
MIYAZAKI	66.00	67.0	10	47	1	19	43	13		
MATUYAMA	66.12	64.6	10	46	0	19	47	16		
MANILA	66.42	88.5	10	47	-1	19	12	-23		
Y.-SAKHLINSK	66.75	48.1	10	51A	1				13	10 PP
ASHIZURI	66.80	65.6	10	50	-1	19	46	6		
KOTI	66.80	64.6	10	51	0	19	48	8		
TOYOOKA	66.81	62.1	10	51A	0	19	44	4	33	8
TAKAMATU	66.82	63.6	10	51	0	19	52	12		
WAKKANAI	66.85	50.0	10	51K	0	19	46	6		
SUTTSU	67.14	53.0	10	54	1	19	49	5		
TOKUSIMA	67.33	63.6	10	55	1					
PIETERMZBURG	67.39	198.3	10	54K	-1					
MUROTO	67.42	64.6							11	56
WAZIMA	67.43	59.5	10	55	0	20	0	13		
SUMOTO	67.44	63.2	10	56	1	20	2	15		
KOBE	67.47	62.8	10	54	-1	20	0	12		
HUKUI	67.58	61.0	10	55	-1					
RESOLUTE	67.59	350.5	10	57A	1					
KANAZAWA	67.65	60.4	10	57	1	19	59	9		
ABUYAMA	67.67	62.4	10	55	-1	20	0	10		
WAKAYAMA	67.68	63.2	10	56	0					
MORI	67.69	53.5	11	2	6	19	52	1		
KYOTO	67.71	62.2	10	55	-1	19	55	4		
OSAKA	67.74	62.7	11	4	7	20	13	22		
SAPPORO	67.74	52.3	10	55	-2	19	48	-3		

MURORAN	67.86	53.2	10	58	1					
HAKODATE	67.96	53.8	10	57	-1					
TOYAMA	67.96	60.0	10	59	1	20	35	41		
HIKONE	67.97	61.8	10	59	1	20	4	10		
ASAHIGAWA	68.06	51.3	10	59A	0	19	58	3		
AIKAWA	68.06	58.3	10	58	-1					
KIMBERLEY	68.22	203.6	10	59	-1					
MOULD BAY	68.25	357.2	11	0A	0	20	5	8		
TAKAYAMA	68.26	60.5	10	56	-4					
GIHU	68.28	61.4	11	1	1					
KAMEYAMA	68.33	62.1	11	1A	1	20	2	4		
AOMORI	68.44	54.7	11	1	0					
SIOMISAKI	68.49	63.7	10	50	-11	20	6	6		
TAKADA	68.51	59.2	10	52	-9					
OWASE	68.51	62.9	10	47	-14	20	7	7		
AKITA	68.52	56.0	11	2	0	20	0	0		
NAGOYA	68.53	61.5	11	1	-1	20	6	6		
NIIGATA	68.67	58.1	11	5	3					
NAGANO	68.68	59.6	11	6	3	20	9	7		
MATUMOTO	68.72	60.1	11	5	2					
SAKATA	68.73	56.9	11	6	3	20	16	13		
MATUSIRO	68.75	59.7	11	2A	-1	20	10	7		
IIDA	68.97	60.9	11	6	2	20	12	6		
OBIHIRO	69.00	51.8	11	4	-1					38 19
HATINOHE	69.08	54.7	11	3	-2	20	8	1		
OIWAKE	69.09	59.8	11	6	1	20	22	15		
URAKAWA	69.11	52.6	11	5	0	20	17	10		
ABASHIRI	69.15	50.3	11	7	2	20	4	-4		
MORIOKA	69.25	55.6	11	6	0	20	10	1		39 28
HAMAMATU	69.29	61.6	11	7	1					
YAMAGATA	69.40	57.3	11	6	-1					
KOHU	69.42	60.4	11	6	-1					
MAEBASI	69.42	59.5	11	6A	-1					
MIZUSAWA	69.50	56.1	11	7	-1	20	17	5		
TITIBU	69.63	59.9	11	9	1					
SHIZUOKA	69.65	61.1	11	9	1	20	13	-1		
HUNATU	69.65	60.5	11	10	2	20	20	6		
HUKUSIMA	69.73	57.7	11	10	1	20	20	5		
KUSIRO	69.74	51.2	11	7	-2	20	16	1		
KUMAGAYA	69.76	59.6	11	9	0	20	29	14		
SENDAI	69.77	57.0	11	9A	0	20	14	-1		
MIYAKO	69.81	55.3	11	8	-1	20	17	1		
SHIRAKAWA	69.87	58.4	11	11	1					
UTUNOMIYA	69.91	59.0	11	10	0	20	20	3		
MISIMA	69.97	60.7	11	13	3	20	22	4		
ISINOMAKI	69.98	56.7	11	10	0	20	30	12		
AJIRO	70.11	60.7	11	11	0					
TUKUBASAN	70.23	59.2	11	9	-3	20	22	1	11 19	13 37 PP
TOKYO C.M.O.	70.26	59.9	11	12A	0	20	34	13		
KAKIOKA	70.28	59.2	11	11	-1	20	24	3		
NEMURO	70.31	50.5	11	11A	-2	20	23	2		
YOKOHAMA	70.31	60.2	11	8	-5	20	37	16		
MITO	70.41	58.9	11	12	-1	20	31	8		
ONAHAMA	70.43	58.2	11	13A	0	20	28	5		
OSIMA	70.45	60.9	11	10	-3	20	26	3		
MERA	70.69	60.5	11	15	0	20	42	16		
PETROPAVLOVK	72.36	36.9	11	24	-1					
SCHEFFERVLLE	74.89	327.6	11	40A	0					
HERMANUS	75.29	205.8	11	44	2					30 21 PKKP
COLLEGE	78.92	7.6	12	3A	1	21	56	-1		15 2 PP
HALIFAX	80.01	318.3	12	8A	0					
BREBEUF	84.53	323.9	12	32A	1	23	0	5	12 42	15 52 PP
WESTON	85.64	320.5	12	38	1	23	26	20		
GUAM	86.17	76.3	11	37	-62					15 4 PP
SITKA	87.63	2.8	12	48	1	23	38	13		16 20 PP
PALISADES	87.96	321.0	12	49A	1	23	26	-2	12 56	
FORDHAM	88.07	320.9	12	49	0	23	26	-3		
BERMUDA	88.74	309.7	12	59	7	23	32	-3		
LONDON ONT.	89.92	326.4	12	57	0					
PENNSYLVANIA	90.11	323.1	12	59	1					
WASHINGTON	91.15	321.4	13	3	0					
PERTH	91.30	129.1	13	9	5	23	40	-18		16 43 PP
MUNDARING	91.55	128.9	13	4A	-1					
BANFF	92.68	350.9	13	10A	0					
CHICAGO JSA.	93.64	329.7	13	14	-1	23	57	-22		
DUBUQUE	94.33	331.9	13	19	1	24	2	-23		
CHAPEL HILL	94.44	320.7	13	18	0					
PENTICTON	94.96	353.1	13	21A	0					

HUNGRY HORSE	95.22	349.3	13 23A	1	24	37	43		16 18 PP
BLOOMINGTON	95.40	327.4	13 30	7					
VICTORIA	96.06	355.5	13 26A	0					
SPOKANE	96.28	351.4	13 28	1					
SEATTLE	96.85	354.7	13 32	3					
COLUMBIA	96.96	320.8	13 31	1	24	12	9		17 26 PKP
RAPID CITY	97.03	340.8	13 31	1					
BUTTE	97.25	347.8	13 32	1	24	16	11		19 43 PP
BOZEMAN	97.31	346.6	13 32A	1					
ST. CLAUDE	97.43	295.6	13 40	8	24	16	10		
ST. LOUIS 1	97.45	329.6	13 32	0					
LONGMIRE	97.71	354.2	13 30	-3	24	20	13		
FORT FRANCE	97.86	294.3	13 35	1	24	20	12		
ROLLA	98.76	330.3	13 38	0					
SAN JUAN	99.08	300.2	13 39	0	24	26	12		
BLUE MTS.	99.11	350.8	13 39A	0	24	33	19		17 44 PP
MANHATTEN	99.40	334.2	13 44A	3					
LARAMIE	100.24	341.5	13 45	0					
TRINIDAD	100.63	291.3	13 47	1					17 55
FLAMING GRGE	101.52	344.1	13 51	1					
GOLDEN	101.69	340.7	13 52	1					18 1 PP
TULSA	102.02	332.1	13 53	0	24	37	8		18 2 PP
SALT LAKE C.	102.19	345.9	13 54	1					16 51
RABAUL	102.43	86.3	13 54	0					17 20
DUGWAY	102.93	346.5	13 58A	1					
PRICE	103.09	344.8	13 59	2					
MAWSON	103.33	174.9	13 58A	0	24	38	3	14 8	18 22 PP
MINERAL	104.04	353.3	14 3A	2					
WICHITA MTS.	104.12	333.6	14 2	0	24	45	7		18 15 PP
EUREKA	104.18	348.7	14 4A	2					18 16 PP
RENO	104.65	351.8	13 56A	-8					
CARACAS	104.88	294.7	14 16K	11	26	11	89		
UKIAH	105.39	354.4	18 24	777					20 57 PPP
GLEN CANYON	105.79	344.7	14 12	777					
CALISTOGA	105.82	353.9	14 7A	777					18 51
LUBBOCK	106.29	335.7	14 13	777					18 45 PP
CHARTERS TS.	106.44	103.1	14 21	777	25	8	19		
BERKELEY	106.56	353.5	14 16K	777	25	9	20		18 34 PP
MIRNY	107.02	163.4	14 17	777	25	0	9		18 41 PP
LICK	107.03	352.9	14 14	777					17 40
BOULDER CITY	107.40	347.0	14 25	777					29 41 PKKP
PRIEST	108.11	352.0	14 13A	777					
ADELAIDE	108.48	120.0	14 28	777					18 48 PP
PASADENA	109.74	349.5	18 12	777	25	20	17		18 58 PP
TUCSON	110.14	342.7	14 31	-238					18 14 PKP
GALERAZAMBA	110.70	300.8							19 10 PP
WILKES	111.63	157.8	14 36	-235	25	15	4		19 12 PP
HONIARA	111.73	86.1	14 36	-236	26	43	92		
CHIHUAHUA	112.23	337.2			26	54	101		19 20 PP
FUQUENE	113.23	295.6	14 46	-229					19 28 PP
BOGOTA	114.04	295.1	14 48A	-228					19 30 PP
TOOLANGI	114.52	119.6	18 38	1					19 35 PP
CHINCHINA	114.95	296.5	14 53	-225	25	35	11		19 36 PP
BALBOA HTS.	114.96	302.7	14 52	-226					19 36 PP
BRISBANE	115.27	106.6	18 31	-8					
CANBERRA	116.04	116.0	18 43	3	25	37	9		29 22 PS
RIVERVIEW	116.97	113.6			25	52	21		19 49 PP
COMITAN	117.13	318.4							29 48 PS
TARRALEAH	117.24	124.0	18 51	9					
KIPAPA	117.45	29.4	19 12	29					20 18 PP
SAVANNAH	117.49	123.2	18 45	2					
HONOLULU	117.53	29.6	19 42	59	26	2	29		15 6 P
TACUBAYA	117.96	326.7	15 18	-206					20 4 PP
MANZANILLO	120.42	331.5							45 20
KOUMAC	121.18	94.0	18 52	2					
NOUMEA	123.79	94.7	19 0K	5					20 42 PP
AREQUIPA	124.77	274.2	18 59	2					
HUANCAYO	125.44	281.2	19 3	5					
SUVA	131.48	83.0	19 40	30					22 39 PKS
SANTA LUCIA	131.59	254.4	19 12A	2					21 39 PP
ROXBURGH	133.91	121.7							22 50 PKS
KARAPIRO	136.92	109.9	19 22	2					
WELLINGTON	137.06	114.8	19 23	3	26	33	7		22 8 PP

SEPTEMBER 2 15.H 21.M 51.S EPICENTRE -10.14 120.31 DEPTH= 0.KM

A=-0.49685 B= 0.85003 C=-0.17486 D= 0.8633 E= 0.5046
G= 0.0882 H=-0.1510 K=-0.9846 MT= 6.5

SE= 3.65

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
DARWIN	10.56	103.2	2	34	-2	4	20	-16					
LEMBANG	12.97	283.7	3	7	-2	5	28	-7					
DJAKARTA	13.91	285.4	3	33	12	6	51	54					
MUNDARING	22.05	189.3	4	56A	-2								
PERTH	22.10	190.2	5	6	7	9	5	7					
MANILA	24.66	1.8	5	25	1						9	25	
CHARTERS TS.	26.90	114.6	5	45	0								
ADELAIDE	29.89	148.6	6	10	-2						11	49	
RABAUL	32.14	81.7	6	28	-4						11	39	
HONG KONG	32.79	349.5				12	5	11					
BRISBANE	35.06	123.8	6	59	2	12	26	-3					
TOOLANGI	35.50	144.4	7	0	-1						15	1	SS
CANBERRA	36.20	138.3	7	6	-1				7	16			
RIVERVIEW	36.81	134.6	7	13K	1						8	13	
KUNMING	39.00	334.2	7	33	3								
HONIARA	39.06	92.5	7	34	3								
CHITTAGONG	42.70	319.4	8	2	2	14	21	-4	8	17	9	41	PP
SHILLONG	45.02	322.6	8	18A	-1	14	54	-4			18	31	
CALCUTTA	45.10	316.3				15	6	6					
SIAN	45.45	346.7	8	25	2								
MADRAS	46.00	299.2	8	34	7	15	14	2			10	55	PPP
LANCHOW	48.50	342.1	8	45	-2								
LHASA	48.57	325.4	8	48	1								
CHATRA	48.84	319.5	8	50	1								
MATUSIRO	49.39	19.0	8	51A	-3	15	54	-6					
PEKING	50.06	355.9	8	58	-1	16	7	-3					
CHANGCHUN	53.90	4.5	9	27	-1								
VLADIVOSTOK	54.05	10.5	9	28	-1	16	59	-5					
BOMBAY	55.00	301.6	9	45	9	17	14	-3					
WILKES	56.52	184.7				17	33	-4					
NEW DELHI	56.70	314.0	9	44A	-4	17	38	-2					
DEHRA DUN	57.16	316.2	9	22	-29						17	49	
DUMONT	58.02	170.9	10	0	3								
ULAN-BATOR	59.01	349.5	10	5	1	18	9	-1					
ESEN BULAK	60.27	341.0	10	12	-1								
Y.-SAKHLINSK	60.31	17.5	10	12	-1	18	32	5					
LAHORE	60.45	315.1	10	23	9								
WARSAK DAM	63.77	315.9	10	35	-1								
QUETTA	65.08	310.0	10	43	-2	19	19	-8	10	54	10	58	*SP
ALMATA-2	65.98	327.0	10	49K	-2								
FRUNSE	67.20	325.2	10	53	-5								
DUZHANBE	68.19	318.6	11	1	-4								
MAWSON	68.61	200.3	11	6K	-1				11	16			
TASHKENT	69.42	321.3	11	13	1	20	27	8					
PETROPAVLOVK	70.90	23.4	11	25	4	20	40	4					
SCOTT BASE	71.66	170.7	11	25	-1								
MAGADAN	73.64	15.6	11	40	3	21	7	-1					
ASHKABAD	75.00	313.8	11	49	4								
SHIRAZ	76.23	303.9	11	51A	-1	21	47	11	11	59	13	1	
SOUTH POLE	79.93	180.0	12	11	-2								
SVERDLOVSK	82.69	331.4	12	26	-1								
CHANGALANE	83.91	244.5	12	32	-1								
BYRD STATION	85.07	171.3	12	38	-1								
TIFLIS	86.07	313.4	12	46	2								
BULAWAYO	88.14	250.0	12	54	0								
BROKEN HILL	89.27	255.5	12	56	-4								
KSARA	90.99	304.0	13	11	3	24	2	-2			25	34	PPS
JERUSALEM	91.14	301.9	13	18	10								
MOSCOW	94.20	325.8	13	33	11								
SODANKYLA	100.70	336.9	13	51	-1								
NURMIJARVI	101.53	329.8	13	54	-2								
KIRUNA	103.05	337.4	14	1	-1	25	50	68					
PRUHONICE	107.83	319.3	18	50	777						19	27	
KASPERSKE H.	108.54	318.4	18	59	777						19	19	
COLLMBERG	108.66	320.8	19	16	777								
BLUE MTS.	119.87	43.8	18	55	2						20	18	PP
PASADENA	121.64	56.1	19	9	13								
EUREKA	122.26	49.6	19	8	11								
BUTTE	122.65	41.3	19	3	5								
BOZEMAN	123.77	41.2	19	4	4								

DUGWAY	124.41	47.9	19	4A	2					
ALBUQUERQUE	130.82	52.3	19	6	-8					
SCHEFFERVLLE	135.08	5.8	19	30	8					
MANHATTEN	136.22	42.4	19	27	3					
WICHITA MTS.	136.92	49.2	19	20	-5				22 15	PP
TULSA	138.41	46.1	19	23	-5					
ROLLA	140.00	41.0	19	28	-3					
BREBEUF	142.79	16.3	19	36	0				52 9	SS
PENNSYLVANIA	145.49	24.7	19	43	3					
PALISADES	146.78	19.8	19	48	6					
COLUMBIA	149.23	36.2	19	49	3					
AREQUIPA	151.11	156.0	19	58	9					
LA PAZ	152.25	162.4	20	1	10					
HUANCAYO	153.03	144.4	20	4	12					

SEPTEMBER 4 13.H 30.M 14.S EPICENTRE 35.59 49.74 DEPTH= 43.KM

A= 0.52670 B= 0.62195 C= 0.57945 D= 0.7631 E=-0.6463
G= 0.3745 H= 0.4422 K=-0.8150 HT= -0.1

DEPTH OF FOCUS= 0.002R

SE= 2.42

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
TEHERAN	1.35	83.4	0	18	-5								
GORIS	4.75	326.2	1	10	-1								
NAKHICHEVAN	4.99	317.5	1	14	0								
KIROVOBAD	5.72	333.0	1	22	-3						2	52	
EREVAN	6.17	319.4	1	33	2						3	13	
KIZYL-ARVAT	6.32	53.4	1	32	-1						3	30	
SHIRAZ	6.37	157.7	1	32	-2	2	50	4			2	13	PG
TIFLIS	7.23	329.2	1	47A	1	3	11	3			2	8	
ASHKABAD	7.30	68.7	1	48	1	3	13	4					
MAKHACH-KALA	7.57	347.4	1	50	0	3	18	2					
GROZNY	8.31	339.4	2	1	0						4	20	
SOTCHI	11.10	318.9	2	42A	3								
KSARA	11.55	265.2	2	48	3	5	6	12			5	38	PP
SIMFEROPOL	15.13	312.9	3	32	0						5	54	SS
QUETTA	15.43	105.6	3	38K	2	6	38	12	3	44			
TASHKENT	16.33	63.7	3	50	2						4	12	PPP
ISTANBUL KA.	17.10	294.8	3	57	0								
ISTANBUL UN.	17.15	294.7	4	0	2								
WARSAK DAM	17.98	88.8	4	7	-1								
KARACHI	18.37	121.0	4	14	1								
KISHINEV	19.35	312.5	4	25K	0	8	0	5					
FRUNSE	20.54	61.9	4	37	0								
LAHORE	20.87	94.1	4	42	1								
ATHENS	20.96	284.2	4	40K	-2	8	39	11					
SOFIA	21.62	297.1	4	52	4	8	59	19					
SVERDLOVSK	22.48	15.8	4	54A	-3	9	0	4					
LWOW	23.49	315.2	5	8A	1	9	24	10			9	58	SS
TIMISOARA	23.78	304.0	5	13	4						5	26	PP
UZHGOROD	24.02	311.3	5	11	-1								
BELGRADE	24.09	301.4	5	14K	2						9	3	PCP
NEW DELHI	24.24	99.0	5	14A	0	9	36	9					
DEHRA DUN	24.29	94.4	5	14	0	9	42	15					
SKALNATE PL.	25.48	311.3	5	29	3						6	44	
BUDAPEST	25.71	307.0	5	22	-6	9	31	-20			5	47	PP
KRAKOW	25.99	313.0	5	30	-1						6	18	PPP
WARSAW	26.30	318.2	5	37	4						6	23	PPP
BOMBAY	26.31	123.1	5	37	4	10	16	15					
SEMIPALATNSK	26.54	46.6	5	36	0								
BRATISLAVA	27.14	307.7	5	36	-5	9	46	-29			6	15	PP
PULKOVO	27.29	338.5	5	42	0								
ZAGREB	27.37	302.3	5	52	9	10	41	23					
MESSINA	27.38	285.7	5	44	1	10	24	5			6	42	PP
VIENNA-H.	27.63	307.6	5	43	-3						10	22	
LJUBLJANA	28.42	302.4	5	54	1						6	54	PP
AQUILA	28.89	294.6	5	58	1	10	46	3			13	24	SS
TRIESTE	28.89	301.4	5	58	1	10	57	14					
PRUHONICE	29.25	310.4	6	2A	2						7	2	PPP
PRAGUE	29.35	310.5	6	5	4								
ROME	29.57	293.7	6	4A	1	11	6	12			7	10	PP
KASPERSKE H.	29.64	308.4	6	1A	-3						6	58	
NURMIJARVI	29.68	334.9	6	2A	-2						7	4	PP

			P	O-C	S	O-C	sPP	SUPP.
	DELTA DEG.	AZ. DEG.	M S	S	M S	S	M S	M S
FLORENCE X.	30.51	297.4	6 6	-5	11 6	-2		
COLLMBERG	30.56	312.4	6 10A	-2			9 11	
KARLSKRONA	30.95	322.4	6 11	-4				
HALLE	31.25	312.4	6 1.	-6			14 16	
JENA	31.33	311.2	6 17	-1			10 22	
KAJAANI	31.51	341.6	6 19A	-1				
UPPSALA	31.93	329.5	6 21	-3			7 24 PP	
COPENHAGEN	32.35	320.1	6 30	3	11 45	8		
STUTTGART	32.35	306.7	6 26	-1	11 45	8		
CHATRA	33.02	94.8	6 35	4				
MONACO	33.27	297.2	6 35	0				
STRASBOURG	33.32	306.1	6 34	-2				
APATITY	33.34	348.7	6 35A	-1	11 55	2	6 41	
ISOLA	33.55	298.0	6 38	0				
BENSBERG	34.06	310.2	6 43	1				
SODANKYLA	34.47	344.4	6 45	-1			7 53 PP	
LHASA	35.10	87.8	6 52	1	12 25	5		
MADRAS	35.47	121.7					15 41	
DOURBES	35.56	308.3					8 17	
CALCUTTA	35.96	100.6					16 40	
SKALSTUGAN	36.13	332.5	6 58A	-2				
KIRUNA	36.31	341.7	7 0	-1	12 35	-4	14 16	
GAPCHY	36.37	303.4	7 3	1			8 35	
KEVO	36.41	346.9	7 2A	0	12 44	4	8 25 PP	
SHILLONG	37.38	93.6	7 10A	0				
TROMSOE	38.01	343.1	7 15	-1				
FOLINIERE	38.78	305.7	7 20	-2				
CHITTAGONG	38.82	98.2	7 22	0				
ALICANTE	39.82	289.3	7 30	-1				
DURHAM	39.88	315.1	7 38	7	13 33	0		
TOLEDO	42.22	292.5	7 48	-2				
BANGUI	42.30	230.0	7 50	-1			8 1	
LWIRO	42.44	212.0	7 46K	-6				
GRANADA	42.50	288.5	8 13K	20			17 4	
MALAGA	43.23	288.1	7 58K	-1				
LANCHOW	43.37	72.9	8 1	1	14 33	9		
ULAN-BATOR	43.44	55.3	8 1	1				
BENI ABBES	43.54	278.1	8 4	3				
KUNMING	46.43	87.8	8 25	1				
SIAN	47.89	73.5	8 38	2				
PEKING	51.58	63.9	9 4	0				
NORD	51.60	350.1	9 4	0				
YAKUTSK	54.70	34.7	9 26A	-1			17 7 PS	
ALERT	57.73	351.7	9 48A	-1				
BULAWAYO	58.94	203.3	9 56	-1				
RANDEIRA	60.93	221.1	10 10A	-1				
WINDHOEK	65.59	213.2	10 42	0				
Y.-SAKHLINSK	66.82	48.0	10 50	1				
MATUSIRO	68.84	59.7	11 1A	-1				
COLLEGE	78.92	7.5	12 0	-1				
HALIFAX	79.92	318.2	12 7	1				
PENTICTON	94.93	353.0	13 19	0				
BLUE MTS.	99.07	350.7	13 38	0			17 42 PP	
WICHITA MTS.	104.05	333.5	14 0	0			18 9 PP	
EUREKA	104.14	348.6	14 0	0				
HUANCAYO	125.33	281.1	18 56	0			19 30	
SOUTH POLE	125.41	180.0	18 56	-1				

SEPTEMBER 4 15.H 17.M 41.5 EPICENTRE 15.39 -91.84 DEPTH= 167.KM

A=-0.03104 B=-0.96411 C= 0.26368 D=-0.9995 E= 0.0322
G=-0.0085 H=-0.2635 K=-0.9646 MT= 5.7

DEPTH OF FOCUS= 0.021R

SE= 2.27

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	sPP M S	SUPP. M S
COMITAN	0.90	342.2	0 7	-19	0 25	-21		
SAN SALVADOR	3.07	123.2	0 50	0	1 28	0		
SANTIAGO MA.	3.77	119.6	0 59	0	1 43	-1		
OAXACA	5.00	289.6	1 10	-5	2 4	-8		
VERA CRUZ	5.58	313.4	1 23	1	2 27	1		
MERIDA	6.92	20.6	1 28	1	2 34	0		3 34
PUEBLA	7.07	301.7			3 11	10		
TACUBAYA	8.08	300.7	1 52	-5	3 21	-4		

HOPE	14.69	77.7	3 21	0						
GALERAZAMBA	16.78	103.8	3 48	2						
CHINCHINA	19.01	121.3	4 13	2						
WICHITA MTS.	20.19	343.7	4 23K	0					11 52	SCP
FUQUENE	20.34	117.1	4 24	-1						
BOGOTA	20.49	119.6	4 26	0						
FAYETTEVILLE	20.72	354.6	4 29	0	8 21	16			4 40	PP
TULSA	20.74	350.9	4 29	0	8 13	8				
COLUMBIA	20.95	25.8	4 31	0						
ROLLA	22.42	359.9	4 46	1	8 38	3				
ST. LOUIS 1	23.21	3.2	4 53	0	8 50	1				
FLORISSANT	23.36	2.9	4 55	1	8 52	1				
CHAPEL HILL	23.43	26.9	4 56	1					5 29	
LAWRENCE	23.68	353.4	4 58	1						
BLOOMINGTON	24.17	10.2			9 7	2				
SAN JUAN	24.79	79.5	5 8	0			5 44		5 57	PP
GOLDEN	26.96	336.5	5 26	-2						
CLEVELAND	27.49	16.9	5 33A	0						
ST. KITTS	27.99	82.0	5 35	-2					6 11	
PENNSYLVANIA	28.08	22.9	5 38A	0						
LARAMIE	28.44	337.9	6 10	29						
BOULDER CITY	29.01	319.2	5 47	1						
LONDON ONT.	29.03	16.2	5 45A	-1						
FLAMING GRGE	29.66	332.5	5 52	0						
PALISADES	29.90	27.9			10 47	9				
TRINIDAD	30.02	95.3	5 50	-5					6 28	
PASADENA	30.19	313.0	5 57	0						
DUGWAY	30.75	327.6	5 50K	-12					12 22	
HUANCAYO	31.79	148.1	6 13	2						
EUREKA	31.97	323.3	6 14	2			6 50		12 25	
WESTON	32.17	29.2	6 14	0						
PRIEST	32.97	314.2	6 23A	2						
BREBEUF	33.71	23.3	6 27A	0			7 6			
BOZEMAN	34.24	335.8	6 32	0			7 11		7 27	PP
LICK	34.27	315.3	6 33K	1					7 10	
BERKELEY	34.96	315.6	6 39K	1					13 13	
BUTTE	35.14	334.6					7 17			
CALISTOGA	35.58	316.5	6 45A	2						
BLUE MTS.	36.41	329.0	6 49	-1			7 25			
HUNGRY HORSE	37.60	335.6	7 1	1	12 45	8	7 35			
BANFF	40.45	337.0	7 22A	-2						
PENTICTON	40.72	332.1	7 26	0						
VICTORIA	41.98	328.6	7 37	1						
SCHEFFERVLLE	43.89	20.7	7 50A	-1						
COLLEGE	62.04	336.4	10 3	-2			10 43		14 27	SCP
ALERT	68.16	4.0	10 42	-2			11 26			
FOLINIERE	79.48	42.3	11 48	-1						
SKALSTUGAN	82.50	25.9					12 47			
BENSBERG	83.76	38.9					12 53			
KIRUNA	83.96	20.7					12 54			
STRASBOURG	84.83	41.1					12 55			
KEVO	85.11	17.8					13 1			
UPPSALA	86.26	28.5					13 5			
SODANKYLA	86.26	19.9					13 6			
JENA	86.42	38.1					13 7		13 37	
HALLE	86.44	37.5					13 8			
COLLMBERG	87.13	37.4					13 10		15 51	PP
KASPERSKE H.	88.26	39.3					13 15			
KAJAANI	88.41	22.5					13 17			
PRUHONICE	88.53	38.3					13 19		14 54	
LJUBLJANA	90.00	41.9					13 24			
CHARTERS TS.	124.69	256.0	18 42	2						
SHILLONG	139.13	354.9							21 34	

SEPTEMBER 4 17.H 17.M 29.S EPICENTRE 41.17-123.90 DEPTH= 38.KM

A=-0.42101 B=-0.62661 C= 0.65583 D=-0.8300 E= 0.5577
G=-0.3658 H=-0.5444 K=-0.7549 HT= -2.1

DEPTH OF FOCUS= 0.001R

SE= 2.20

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
UKIAH	2.11	165.5	0	30	-3	0	51	-8				

LONGMIRE	5.77	14.4	1 20K	-5			
BLUE MTS.	6.07	50.5	1 31A	2			
EUREKA	6.29	103.0	1 33	1			
SEATTLE	6.57	9.5	1 40	4			2 57
VICTORIA	7.35	2.5	1 45A	-2			
PASADENA	8.35	145.3	1 59	-2			4 25
DUGWAY	8.48	93.0	2 4K	1	3 53	15	4 37
PENTICTON	8.68	18.9	2 5K	-1			
BOULDER CITY	8.79	123.2	2 3	-4			
SALT LAKE C.	9.12	88.6	2 14	2			5 0
BUTTE	9.54	55.7	2 19	1			5 15
HUNGRY HORSE	10.03	41.0	2 25	1	4 38	21	
PRICE	10.11	94.6	2 28A	3			
BOZEMAN	10.37	60.0	2 31	2			5 30
GLEN CANYON	10.45	109.7	2 33	3			
FLAMING GRGE	10.96	86.5	2 37	0			
BANFF	11.55	27.2	2 46A	1			
TUCSON	13.74	126.2	3 22	8			
LARAMIE	13.79	83.4	3 14	-1			
GOLDEN	14.19	89.9	3 21	1			
ALBUQUERQUE	15.07	108.7	3 33	2			
RAPID CITY	15.51	72.3	3 36	-1			
SITKA	17.52	338.9	4 3	0			
WICHITA MTS.	20.93	99.7	4 39	-2			6 40
MANHATTEN	20.93	86.4	4 38	-3			
LAWRENCE	21.99	86.3	4 49	-3			
TULSA	22.55	94.3	4 56	-2	8 21	-37	
FAYETTEVILLE	23.69	92.7	5 7	-2			6 29 PP
ROLLA	24.82	87.0	5 18	-2	8 46	-51	
FLORISSANT	25.71	84.2	5 25	-3			
ST. LOUIS 1	25.86	84.5	5 27	-2			
COLLEGE	27.41	337.9	5 43	-1			
BLOOMINGTON	28.50	81.5	5 35	-19			
LONDON ONT.	31.50	72.2	6 20	0			
PENNSYLVANIA	34.43	75.1	6 45	-1			
CHAPEL HILL	35.17	83.7	6 51	-1			
RESOLUTE	36.12	12.6	7 1	1			
BREBEUF	36.34	65.9	7 1	-1			
PALISADES	37.25	73.3			12 59	5	
SCHEFFERVLLE	39.46	49.9	7 28A	0			
HALIFAX	43.43	64.5	8 1A	0			
ALERT	45.77	9.3	8 20	1			
HOPE	46.37	105.4	8 25	1			
SAN JUAN	54.00	96.8	9 23	1			
CHINCHINA	56.15	116.4	9 42	4			
FUQUENE	57.08	114.4	9 46	2			
BOGOTA	57.46	115.4	9 49	2			
ANTIGUA	57.97	94.9	9 50	-1			
CARACAS	58.44	104.6	9 54A	0			
TRINIDAD	62.41	100.3	10 19	-2			
KEVO	67.34	10.6	10 53	0			
KIRUNA	68.04	13.8	10 56	-1			
HUANCAYO	69.35	128.4	11 7	2			
SODANKYLA	69.49	11.7	11 5	-1			
SKALSTUGAN	69.95	19.3	11 8	-1			
MATUSIRO	72.23	303.1	11 28	5			
KAJAANI	72.71	12.6	11 25	-1			
UPPSALA	74.47	19.0	11 34	-2			
NURMIJARVI	75.45	15.5	11 41	0			
BENSBERG	78.79	29.1					13 3
JENA	80.37	26.7	12 9	0			
COLLMBERG	80.54	25.8	12 10	0			12 18 PCP
PRUHONICE	82.18	25.6	12 19	1			12 38
KASPERSKE H.	82.59	26.6	12 21	1			
LJUBLJANA	85.56	27.6	12 36	1			13 5
BANGUI	123.20	46.5	18 53	0			
BROKEN HILL	144.15	50.1	19 32A	1			
BULAWAYO	148.61	56.4	19 41	2			
KIMBERLEY	151.65	74.0	19 51	7			

SEPTEMBER 4 22.H 59.M 17.S EPICENTRE 39.97 44.21 DEPTH= 5.KM

A= 0.55086 B= 0.53583 C= 0.63987 D= 0.6973 E=-0.7168
G= 0.4587 H= 0.4462 K=-0.7685 HT= -1.7

SE= 2.62

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
EREVAN	0.31	47.2									0	7	PG
LENINAKAN	0.85	341.4									0	16	PG
STEPANAVAN	1.03	7.3									0	22	PG
NAKHICHEVAN	1.20	129.5									0	21	PG
AKHALKALAKI	1.53	339.0									0	29	PG
GORIS	1.70	105.4									0	31	PG
KIROVOBAD	1.76	66.7									0	32	PG
TIFLIS	1.80	14.3	0	35K	3						1	0	SG
BAKURIANI	1.83	343.6	0	34	1						1	1	SG
ABASTUMANJ	2.06	330.0	0	37	1								
ZUGDIDI	3.09	326.2	0	51	1						1	21	
SHEMAKHA	3.45	77.6	0	56A	1						1	44	S*
GROZNY	3.54	18.6	0	59	2	1	44	4					
MAKHACH-KALA	3.88	38.5	1	6	4						1	27	
SOTCHI	4.92	318.5	1	16K	0						2	31	
SIMFEROPOL	8.96	307.0	2	11	-2	3	56	0					
KSARA	9.06	229.9	2	17	2	4	1	3			2	28	PP
KIZYL-ARVAT	9.35	90.9	2	16A	-2								
ASHKABAD	11.20	95.9	2	39	-5								
ISTANBUL KA.	11.58	280.3	2	48	-1								
ISTANBUL UN.	11.64	280.2	2	50A	0								
SHIRAZ	12.35	144.0	2	56A	-3						6	45	SS
KISHINEV	13.19	307.3	3	6	-5						6	2	
SOFIA	15.91	286.6	3	45	-1	6	58	15			4	0	PP
ATHENS	16.06	269.4	3	45A	-3	6	53	6					
MOSCOW	16.36	346.7	3	49K	-3	6	55	1			3	58	PP
LWOW	17.31	311.3	4	1K	-3	7	17	1					
SAMARKAND	17.49	83.7	4	4	-2								
TIMISOARA	17.79	296.5	4	12	2						7	34	SS
UZHGOROD	17.86	306.2	4	8	-3								
BELGRADE	18.18	293.2	4	14A	-1	7	33	-2			7	52	SS
TITOGRAD	18.92	285.6	4	25	1						8	4	PCP
DUZHANBE	19.06	86.3	4	24	-2						8	7	
TASHKENT	19.06	77.8	4	25A	-1						9	8	
SKALNATE PL.	19.32	306.4	4	26	-3						8	9	
SARAJEVO	19.54	289.9	4	32	1								
KRAKOW	19.82	308.6	4	32	-2						5	8	PPP
SVERDLOVSK	19.99	27.0	4	34A	-2	8	15	-1					
WARSAW	20.11	315.2	4	36K	-2	8	20	2			4	52	PP
HURBANOVO	20.26	301.5	5	21	42						5	59	PP
TARANTO	20.57	280.1	4	40	-2	8	20	-8					
RACIBORZ	20.88	307.6	4	43	-2						5	6	PP
NAMANGAN	20.89	78.3	4	45A	-1						8	50	
QUETTA	20.97	110.7	4	45A	-1	8	48	12	4	54	5	11	PP
BRATISLAVA	21.05	301.9	4	45	-2	8	46	9			5	29	PPP
ZAGREB	21.43	295.1	4	49	-2	8	52	8			7	25	
KHOROG	21.43	87.9	4	53	2						8	56	PCP
ANDIJAN	21.44	78.8	4	51A	0						8	58	PCP
VIENNA-H.	21.54	301.8	4	51	-1	8	43	-4					
PULKOVO	21.66	340.8	4	52A	-1						8	59	PCP
MESSINA	22.28	274.7	4	58	-2	9	4	4			5	26	PP
LJUBLJANA	22.46	295.5	5	0	-1						5	28	PP
WARSAK DAM	22.59	96.6	5	2A	-1								
FRUNSE	22.93	72.9	5	7A	1						9	21	
TRIESTE	22.97	294.3	5	5	-1	9	16	3					
PRUHONICE	23.10	305.5	5	6	-2	9	11	-4					
PRAGUE	23.20	305.7	5	9	0	9	11	-6			7	17	
AQUILA	23.26	285.9	5	8	-1	9	23	5			5	35	PP
HELSINKI	23.52	335.6	5	11	-1								
KASPERSKE H.	23.53	303.1	5	11K	-1						6	15	
NURMIJARVI	23.88	335.9	5	14K	-1	9	32	3					
ROME	23.98	285.0	5	15A	-1	9	43	13			5	51	PP
PADOVA	24.28	293.6	5	9	-10	9	18	-18	5	21	5	43	PPP
KARACHI	24.39	121.4	5	21	1								
COLLMBERG	24.40	308.0	5	19K	-1						6	0	PP
CHEB	24.49	305.0	5	22	1						9	3	
ALMATA	24.61	71.6	5	24A	2						9	55	
FLORENCE X.	24.74	289.7	5	7	-17	9	34	-9					
KARLSKRONA	24.80	320.3	5	23	-1								
ALMATA-2	24.92	71.5	5	25K	0								
HALLE	25.08	308.1	5	25	-2	9	40	-9					
JENA	25.17	306.7	5	24	-4	9	52	1			6	7	PP
LAHORE	25.76	99.6	5	27	-6								
UPPSALA	25.93	328.9	5	32K	-3	10	3	0					
RAVENSBURG	25.96	299.0	5	33	-2								
CHUR	25.96	296.9	5	33	-2						8	37	

KAJAANI	26.02	343.5	5 34K	-2				
COPENHAGEN	26.18	317.5	5 35	-2	10 11	4		
PAVIA	26.18	293.0	5 38	1	10 13	5		10 46
STUTTGART	26.28	301.2	5 35	-3	10 24	15		5 53
TUBINGEN	26.39	300.6	5 38	-1				
EBINGEN	26.42	299.8	5 37	-2				
HEIDELBERG	26.72	302.5	5 40	-2				
SEMIPALATNSK	27.21	55.4	5 48	1				
STRASBOURG	27.26	300.5	5 47	0	10 47	22		12 15 SS
GOTEBORG	27.27	321.3	5 45	-2				6 5
BASLE	27.32	298.2	5 39	-9	10 45	19		
MONACO	27.50	290.0	5 48	-1				
ISOLA	27.74	291.0	5 51	0				
BENSBERG	27.92	305.6	5 51K	-2				6 43 PP
APATITY	28.27	351.3	5 52A	-4				9 47
BESANCON	28.40	297.6	5 55	-2				
WITTEVEEN	28.55	309.3	5 58	-1				
SODANKYLA	29.13	346.1	6 2K	-2				
DEHRA DUN	29.15	98.7	6 2	-2				11 25
KONGSBERG	29.24	323.8	6 2	-3	10 53	-4	6 12	
DE BILT	29.32	307.5			10 55	-3		
NEW DELHI	29.38	102.5	6 6A	0	11 1	2		
DOURBES	29.45	303.4	6 6	-1	11 2	2		
UCCLE	29.67	304.8	6 7	-2	11 5	1		
SKALSTUGAN	30.23	332.0	6 14	0				
GARCHY	30.38	297.7	6 13	-2				
CLERMONT-FD.	30.41	294.7	6 7	-8				
PARIS	30.76	300.7	6 18	0				
KIRUNA	30.81	342.6	6 17K	-2	11 21	-1		7 10 PP
KEVO	31.20	348.5	6 21	-1	11 27	-1		
BOMBAY	32.36	122.1	6 35A	3	11 57	11		
TROMSOE	32.58	343.9	6 32	-2				
KEW	32.66	305.6	6 33A	-2	11 44	-7		
FOLINIERE	32.72	300.6	6 32	-4				
BAGNERES	32.85	290.0	6 33	-4				
POONA	33.30	121.3	6 41	0				
DURHAM	33.69	311.5	6 40	-4	12 10	3		
JERSEY	33.78	301.4						8 1
ABERDEEN	34.33	315.7			12 19	2		14 39 SS
ALMERIA	36.39	280.4	7 6A	-1				8 30 PP
TOLEDO	36.64	285.8	7 4	-5				7 59 PP
GRANADA	37.13	281.4	7 19A	6				8 52 PP
CHATRA	37.84	96.9	7 20	1				
MALAGA	37.89	281.0	7 16A	-4	13 7	-4		
ESEN BULAK	37.91	62.6	7 21	1	13 14	2		
BOKARO	38.43	102.0	7 22	-2				
SERRA PILAR	39.63	289.4	7 32K	-2				
COIMBRA	39.77	287.9	7 33	-2				
LISBON	40.77	286.0	7 43A	-1				
CALCUTTA	41.11	101.5						19 28
SHILLONG	42.09	95.1	7 53A	-1				
IRKUTSK	42.26	52.4	7 55	-1				
BANGUI	42.30	219.8	7 50	-6			8 3	
LWIRO	44.33	202.3	8 12K	-1				
REYKJAVIK	44.64	325.2	8 14	-1				
ULAN-BATOR	44.71	58.2	8 18	2	15 0	7		
SCORESBY SD.	45.00	334.2	8 18	0				
YAKUTSK	53.66	35.7	9 23	-2				
BROKEN HILL	56.09	198.5	9 40	-2				
BULAWAYO	61.55	196.7	10 17	-3				
BANDEIRA	61.70	214.3	10 18	-4				
Y.-SAKHLINSK	67.12	47.3	10 56	-1	19 55	5		
SCHEFFERVLLE	68.74	324.6	11 4	-3				
MATUSIRO	70.36	58.5	11 15K	-2				21 19 SCS
HALIFAX	73.74	314.9	11 36	-1				
COLLEGE	75.07	5.3	11 44	-1				
PALISADES	81.71	317.6			22 31	-2		
PENNSYLVANIA	83.88	319.7	12 31K	-1				
BANFF	87.52	347.4	12 50	0				
PENTICTON	89.95	349.5	13 1	-1				
HUNGRY HORSE	89.97	345.7	13 2	0				
VICTORIA	91.21	351.8	13 7	0				
BOZEMAN	91.90	342.9	13 10	-1				
BLUE MTS.	93.94	346.9	13 15	-5				16 3
DUGWAY	97.50	342.4						16 22
WICHITA MTS.	98.13	329.8	13 37	-2				16 49
CARACAS	99.01	291.8			24 21	0		

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

SEPTEMBER 6 11.H 10.M 51.S EPICENTRE -3.97 126.47 DEPTH= 26.KM

A=-0.59305 B= 0.80222 C=-0.06883 D= 0.8041 E= 0.5945
G= 0.0409 H=-0.0553 K=-0.9976 HT= 7.1

SE= 3.11

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
DARWIN	9.40	153.0	2 15	-1				
LEMBANG	18.98	260.6	4 24A	2	7 9	-40		
BAGUIO CITY	21.08	344.1	4 43	-1	8 31	-2		
PORT MORESBY	21.22	105.8	4 45K	-1	8 37	2		5 37 PP
NHATRANG	23.52	313.4	5 7	-1				
CHARTERS TS.	25.07	131.3	5 24A	1	9 59	16		
RABAUL	25.63	91.4	5 29	0				10 4
HONG KONG	28.75	335.8			10 51	8		
MUNDARING	29.47	197.9	6 0	-3				
ADELAIDE	32.87	161.3	6 33	0			6 42	12 57 PCS
HONIARA	33.67	101.0	6 39	-1				
BRISBANE	34.24	135.5	6 24	-21	12 7	-3		
KUNMING	36.98	322.7	7 10	1	12 53	1		
CANBERRA	37.51	149.0	7 13	0			7 22	
RIVERVIEW	37.56	145.2			13 0	-1		
TOOLANGI	37.70	155.0	7 15A	0			7 24	9 4 PPP
KOUMAC	40.30	117.4	7 37K	1				
MATUSIRO	41.77	14.2	7 46K	-2	13 58	-6		
TARRALFAH	42.12	157.8	7 55	4				
MOORLANDS	42.52	157.2	7 58	4				
NOUMEA	42.78	118.8	7 59A	2				
CHITTAGONG	42.81	309.2	7 59	2				
PORT VILA	43.18	111.7	8 0	0				
SHILLONG	44.59	313.1	8 11A	0				
PEKING	44.80	348.8	8 11	-2	14 50	2		
LANCHOW	45.10	333.9	8 15	0	14 58	6		
LHASA	47.64	316.9	8 37	2	15 35	6		
CHATRA	48.78	311.2	8 44	0				
Y.-SAKHLINSK	52.76	13.9	9 14	0				
ULAN-BATOR	54.45	343.9	9 31	4				
ESEN BULAK	56.85	335.4	9 48	4				
NEW DELHI	57.34	307.7	9 43K	-5				
DEHRA DUN	57.46	309.9	9 44	-5				
WILKES	63.25	187.1	10 26	-2				
DUMONT	63.29	174.0	10 27	-1				
WARSAK DAM	64.03	310.9	10 32	-1				
ALMATA-2	64.53	322.3	10 35	-1				
KHOROG	65.53	314.3	10 50	7				
YAKUTSK	65.85	1.7	10 33K	-12	19 28	-1		
QUETTA	66.19	305.3	10 46	-1				
MIRNY	66.66	193.9	10 48	-2				
DUZHANBE	67.97	314.4	10 59	1				
TASHKENT	68.79	317.2	11 4	1				
ASHKABAD	75.42	310.7	11 42	-1				
VANNOVSKAYA	75.61	310.6	11 43	-1				
MAWSON	76.49	200.7	11 47	-2				12 1 PCP
SHIRAZ	78.10	301.2	11 54	-4	21 34	-15		22 56
SOUTH POLE	86.05	180.0	12 37	-2				
TIFLIS	86.42	312.1	12 49	8				
BYRD STATION	90.17	170.8	12 59	0				
COLLEGE	91.74	25.2	13 5	-1				
APATITY	94.81	337.4	13 25A	5				
KAJAANI	97.39	334.0	13 36	4				
KIRUNA	99.69	338.3	13 36	-6				26 35 PS
TROMSOE	99.77	340.2	13 47	4				
SKALSTUGAN	104.15	335.1	14 7	5				
BLUE MTS.	111.21	43.2	18 35	4				19 0 PP
EUREKA	113.63	48.5	18 38	2				
FLAMING GRGE	117.98	45.2	18 44	0				
TUCSON	119.55	55.1	19 4	17				
GOLDEN	121.29	45.2	18 51	1				
TOLEDO	122.87	315.9						36 28
MANHATTEN	127.57	42.0	19 10	8				
WICHITA MTS.	128.28	48.0	18 57	-7				21 10
DUBUQUE	129.37	35.3	19 23	17				
TULSA	129.76	45.3	19 15	8				
ROLLA	131.36	40.9	19 22	12				

SEPTEMBER 7 7.H 41.M 50.S EPICENTRE -6.38 130.13 DEPTH= 155.KM

A=-0.64060 B= 0.75991 C=-0.11031 D= 0.7646 E= 0.6445
G= 0.0711 H=-0.0843 K=-0.9939 HT= 6.9

DEPTH OF FOCUS= 0.019R

SE= 1.82

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
DARWIN	6.01	173.5	1 27	0				
PORT MORESBY	17.12	101.2	3 51K	0	6 55	1		
CHARTERS TS.	20.76	132.6	4 31K	1				8 14
RABAUL	22.05	85.5	4 43	1				8 32
LEMBANG	22.37	267.6	4 45	0	8 34	-2		
MANILA	22.75	336.8	4 52	3	8 51	9		
NHATRANG	27.82	311.6	5 34	-2				
MUNDARING	28.59	205.3	5 42	-1	10 18	-1		
ADELAIDE	29.54	165.6	5 51	-1				11 46
HONIARA	29.69	97.8	5 52	-1				
BRISBANE	30.00	136.8	5 56	0				18 49
RIVERVIEW	33.55	147.3	6 27K	0				
CANBERRA	33.63	151.5	6 28K	1			7 7	7 43 PP
TOOLANGI	34.05	157.9	6 32K	1				
KOUMAC	35.97	116.4	6 47K	0				
NOUMEA	38.44	118.1	7 8K	0				
TARRALEAH	38.59	160.5	7 10	1				
MOORLANDS	38.97	159.8	7 13	1				
KUNMING	41.11	320.6	7 29	-1				
MATUSIRO	43.36	9.5	7 46K	-2				8 31
CHITTAGONG	47.14	308.5	8 17A	-1			8 59	10 5 PP
PEKING	47.94	345.6	8 23	-1				
SHILLONG	48.89	312.1	8 31A	0				
LANCHOW	48.90	331.5	8 31	0	15 19	-3		
VLADIVOSTOK	49.29	1.7	8 34	0				
KARAPIRO	51.74	134.2	8 53	0			9 31	
LHASA	51.88	315.8	8 54A	0	16 0	-3		
CHATEAU	52.29	135.6	8 56	-1			9 35	
BOKARO	52.65	306.4	9 4	4				
CHATRA	53.10	310.4	9 3	0				
TUAI	53.25	134.5	9 3	-1			9 44	
Y.-SAKHLINSK	54.32	10.6	9 10K	-2				
APIA	57.55	102.2	9 35	0				
DUMONT	60.58	175.5	9 54	-2				
POONA	60.75	295.2	9 53A	-4				
NEW DELHI	61.68	307.1	10 1A	-2				
DEHRA DUN	61.79	309.3	10 3	-1				
PETROPAVLOVK	63.92	18.7	10 24	6				
LAHORE	65.20	308.9	10 23	-3				
YAKUTSK	68.19	359.8	10 44A	-1				
WARSAK DAM	68.34	310.3	10 45	-1				
KHOROG	69.81	313.7	10 56	1				
QUETTA	70.54	305.0	10 59A	0	19 57	-2	11 42	
SEMIPALATNSK	71.03	328.8	11 4	2				
DUZHANBE	72.25	313.7	11 8A	-2				
TASHKENT	73.02	316.5	11 13A	-1				
MAWSON	75.57	201.4	11 26K	-3			12 11	
TANANARIVE	80.96	251.9	12 4	6				
SHIRAZ	82.45	300.9	12 6A	0	22 3	-5	12 45	22 59 *SS
SOUTH POLE	83.67	180.0	12 11	-1				
BYRD STATION	87.23	170.6	12 30	1				
TIFLIS	90.72	311.7	12 47	1				
COLLEGE	92.35	25.0	12 51	-2			13 37	
BLUE MTS.	110.41	44.5	18 14	1				18 48 PP
WOODY	110.74	54.3	18 52	38				
EUREKA	112.43	49.9	18 19	2				14 27 P
DUGWAY	114.66	48.6	18 23K	2				
FLAMING GRGE	117.00	47.1	18 27	1				
TUCSON	117.86	56.9	18 28	0				
TUCSON TELE.	117.94	56.8	18 29	1				
RAPID CITY	120.28	42.0	18 33	1				
GOLDEN	120.30	47.4	18 34	2				
ALBUQUERQUE	120.83	53.0	18 35	2				
MANHATTEN	126.80	44.9	18 46	1				
WICHITA MTS.	127.06	50.9	18 47	2				21 15 PP
TULSA	128.73	48.4	18 50	1				
ROLLA	130.66	44.3	18 53	1				
FLORISSANT	131.25	42.5	18 53	0				
BLOOMINGTON	133.57	39.8	18 58K	0				

BREBEUF	135.91	24.0	19	4K	2				26	4	PP
HUANCAYO	148.76	125.8	19	29	4						
LA PAZ	150.97	141.7	19	32	4						
CHINCHINA	154.34	91.8	19	31	-2				19	57	PKP2
BOGOTA	155.85	92.9	19	39	4				20	7	PKP2
SAN JUAN	160.17	51.6	19	40	0	20	23				
TRINIDAD	167.83	68.8	19	50	3				20	55	PKP2

SEPTEMBER 9 1.H 34.M 32.S EPICENTRE 10.42 121.65 DEPTH= 0.KM

A=-0.51612 B= 0.83744 C= 0.17975 D= 0.8513 E= 0.5247
G=-0.0943 H= 0.1530 K=-0.9837 HT= 6.5

SE= 1.31

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
MANILA	4.26	352.6	0	35	-32	1	50	-8				
BAGUIO CITY	6.05	350.2	1	37	5	3	13	30				
HONG KONG	13.81	329.7				5	57	3				
ZO-SE	20.58	358.9	4	43	0	8	34	6				
LEMBANG	22.11	219.7	5	1A	3	8	51	-7				
KUNMING	23.14	311.6	5	10	2	9	22	6				
DARWIN	24.42	157.8	5	21	0							
CHENGTU	25.97	323.4	5	34	-1	10	2	-3				
SIAN	26.42	335.8	5	39	-1							
PEKING	29.88	351.5	6	10	-1							
LANCHOW	30.20	330.5	6	14K	0							
SHILLONG	31.97	302.1	6	27A	-2							
CHARTERS TS.	38.81	141.3	7	28A	0							
ADELAIDE	47.95	161.1	8	41A	-1							
BRISBANE	48.21	141.9	8	45K	1						10	38
ALMATA-2	50.41	318.6	9	1	0							
WARSAK DAM	51.37	305.3	9	7K	-1							
YAKUTSK	51.84	4.8	9	11K	-1							
PETROPAVLOVK	51.84	27.5	9	11	-1							
CANBERRA	52.34	151.7	9	15A	0						10	26 PCP
KHOROG	52.36	309.6	9	16	1							
TOOLANGI	52.71	156.2	9	18A	0							
QUETTA	54.40	299.6	9	30K	0				9	44	10	32 PCP
NOUMEA	54.65	126.9	9	33A	1							
DUZHANBE	54.76	310.1	9	32K	-1	17	14	1				
TASHKENT	55.20	313.4	9	37A	1	17	26	7				
ASHKABAD	62.64	307.3	10	29	1							
VANNOVSKAYA	62.84	307.3	10	30	1							
SVERDLOVSK	65.66	328.1	10	46	-2							
SHIRAZ	66.82	297.8	10	54K	-1							
KARAPIRO	69.61	137.0	11	13	0							
CHATEAU	70.29	138.2	11	16	-1							
TUAI	71.15	137.1	11	21	-1							
GORIS	72.13	308.2	11	27A	-1							
KIROVOBAD	72.16	309.4	11	28K	0	20	53	3				
TIFLIS	73.34	310.5	11	35	0							
TANANARIVE	78.62	248.2	12	6	1							
MIRNY	79.58	191.7	12	9	-1							
APATITY	79.76	337.0	12	14A	3							
KSARA	80.79	302.7	12	18	2						12	38
COLLEGE	80.87	25.6	12	16	-1							
JERUSALEM	81.58	300.8	12	22	1							
KEVO	81.90	339.5	12	22	0							
SODANKYLA	82.39	337.1	12	24K	-1							
KAJAANI	82.43	333.7	12	25	0							
HELSINKI	84.35	330.1	12	34A	-1							
NURMIJARVI	84.43	330.4	12	34A	-1							
KIRUNA	84.62	338.0	12	35A	-1							
ISTANBUL UN.	85.23	310.7	12	38A	-1							
ALERT	87.20	0.5	12	48	-1							
PRUHONICE	92.83	321.8	13	16	1							
PRAGUE	92.88	322.0	13	18	3							
COLLMBERG	93.30	323.4	13	17A	0						17	3 PP
KASPERSKE H.	93.72	321.3	13	18	-1							
HALLE	93.84	323.9	13	19	-1							
JENA	94.27	323.4	13	20	-2							
STUTTGART	96.48	322.0	13	31	-1							
VICTORIA	98.13	37.5	13	41	2							
PENTICTON	99.99	35.6	13	49	1							

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BLUE MTS.	103.56	38.8	14	5	1							18	12	PP
BYRD STATION	105.06	170.9	18	28	777									
EUREKA	107.09	43.1	18	18	777									
GRANADA	110.20	316.0	14	47	-226									
WICHITA MTS.	121.11	38.4	18	55	1					19	6	20	28	PP
HOPE	146.42	32.9	19	45	4									
SAN JUAN	150.37	15.0	19	53	5									

SEPTEMBER 9 3.H 21.M 56.S EPICENTRE -15.73 -73.35 DEPTH= 103.KM

A= 0.27601 B=-0.92264 C=-0.26937 D=-0.9580 E=-0.2866
G=-0.0772 H= 0.2581 K=-0.9630 HT= 5.6

DEPTH OF FOCUS= 0.011R

SE= 1.64

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
HUANCAYO	4.13	332.0	1	3	1	1	37	-12					
LA PAZ	5.07	99.4	1	16	1								
ANTOFAGASTA	8.40	161.3	1	56	-4						2	21	
SANTA LUCIA	17.80	172.6	4	2A	0						4	30	
BOGOTA	20.23	357.9	4	33A	5	8	16	11			8	26	*SS
CHINCHINA	20.69	353.6	4	38A	5	8	29	16			8	38	*SS
FUQUENE	21.06	358.9	4	39	2	8	36	16			10	4	*SS
CARACAS	26.82	14.1	5	29	-3	10	2	3					
TRINIDAD	28.75	25.0	5	48	-1								
SAN JUAN	34.63	12.1	6	38	-3								
COLUMBIA	49.99	351.7	8	45	0				9	10			
FAYETTEVILLE	55.18	339.4	9	21K	-3						9	44	PP
TULSA	55.58	337.9	9	26	-1								
WICHITA MTS.	55.61	334.8	9	25	-2						10	24	PCP
BLOOMINGTON	56.00	347.7	9	28	-2								
ROLLA	56.12	342.3	9	29K	-1								
ST. LOUIS 1	56.35	344.1	9	30	-2								
PENNSYLVANIA	56.39	355.9	9	32K	0								
PALISADES	56.45	359.5	9	32	-1								
FLORISSANT	56.53	344.1	9	32K	-1								
ALBUQUERQUE	59.40	328.6	9	53	0				10	30			
DUBUQUE	60.11	345.3	9	56	-2								
HALIFAX	60.71	8.0	10	2	0								
BREBEUF	60.93	359.8	10	3K	-1				10	29	10	50	PCP
BOULDER CITY	64.68	323.5	10	29	0				11	7			
PRICE	65.20	328.8	10	32	0								
RAPID CITY	65.47	336.8	10	33	-1								
FLAMING GRGE	65.53	330.7	10	34	0				11	3			
SALT LAKE C.	66.60	329.0	10	41	0								
DUGWAY	66.65	328.0	10	42K	1						36	8	
WOODY	66.87	320.8	10	43	0				11	9			
BYRD STATION	67.57	187.8	10	48	1				11	12	11	23	*SP
EUREKA	67.80	325.5	10	49	1								
PRIEST	68.26	320.2	10	52K	1								
LICK	69.64	320.6	11	1K	1								
BOZEMAN	69.99	332.8	11	2	0				11	29			
SCHEFFERVLLE	70.49	4.0	11	3K	-2								
BUTTE	70.93	332.2	11	8	0								
CALISTOGA	71.04	321.2	11	9K	1								
MINERAL	71.56	323.1	11	11A	0								
BLUE MTS.	72.32	328.8	11	16K	0				11	43			
HUNGRY HORSE	73.35	333.0	11	22	0								
SOUTH POLE	74.37	180.0	11	29	1								
BANFF	76.12	334.2	11	37	-1								
PENTICTON	76.59	330.9	11	41K	1								
VICTORIA	77.89	328.6	11	49	1								
SCOTT BASE	80.70	190.7	12	4	1								
BANDEIRA	82.93	103.5	12	16A	2				12	42			
MALAGA	83.24	49.0	12	17A	1								
TOLEDO	84.84	46.3	12	25	1	22	44	2	12	50			
MAWSON	91.02	164.6	12	54K	1								
BANGUI	93.06	86.3	13	4	1				13	30			
STUTTGART	96.90	41.4	13	18	-2				13	47			
COLLEGE	97.67	335.5	13	24	0								
SHIRAZ	128.59	64.5	18	57A	2						28	31	
QUETTA	140.92	61.3	19	15	-3								
MATUSIRO	145.14	312.5	19	26K	1				19	54			

NEW DELHI	149.96	59.8	19	35A	2							
SHILLONG	163.06	52.3	19	52	3							

SEPTEMBER 10 9.H 36.M 24.S EPICENTRE 34.64 26.67 DEPTH= 30.KM

A= 0.73682 B= 0.37011 C= 0.56579 D= 0.4489 E=-0.8936
G= 0.5056 H= 0.2540 K=-0.8245 HT= 0.3

SE= 2.62

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
ATHENS	4.09	325.2	1	4	2						2	7	SG
ISTANBUL UN.	6.65	15.3	1	45	7						2	6	
ISTANBUL KA.	6.70	15.8	1	29	-10								
KSARA	7.67	93.5	1	47A	-5	3	9	-10			3	23	SS
JERUSALEM	7.71	109.3	1	49	-4	3	13	-7					
SKOPJE	8.39	332.2	1	59	-3						4	12	
SOFIA	8.46	343.0	2	8	5	3	37	-2					
MESSINA	9.64	294.8	2	18	-2	4	6	-2			2	40	P*
TITOGRAD	9.70	325.5	2	33	12	4	17	7			3	0	PG
SARAJEVO	11.21	327.8	2	57	16						5	39	
BELGRADE	11.24	336.7	2	42A	0	5	6	19			2	47	PPP
SIMFEROPOL	11.78	26.8	2	49A	0	4	59	-1					
TIMISOARA	11.85	341.1				5	28	26			6	27	
KISHINEV	12.48	6.9	2	56	-2	5	15	-2					
SZEGED	12.62	338.8	3	5	5						3	10	PP
AQUILA	12.93	310.5	3	3	-1	5	28	0			3	24	
ROME	13.29	307.2	3	22	13	5	13	-24			4	34	
SOTCHI	13.49	44.7	3	12A	0	5	48	6					
ZAGREB	13.82	327.1	3	19	2	6	28	39			7	19	
BUDAPEST	14.06	338.2	3	9	-10	6	12	17			3	24	PP
UZHGOROD	14.35	348.2	3	25	2								
HURBANOVO	14.66	336.9	3	43	16						4	47	
LJUBLJANA	14.67	324.6	3	24	-3	6	11	1			5	0	
TRIESTE	14.76	322.0	3	32	4						6	4	
FLORENCE X.	15.02	312.0	3	22	-10	5	52	-26					
SKALNATE PL.	15.29	343.8	3	40	5						8	16	
BRATISLAVA	15.29	335.0	3	51	16	5	50	-34			5	10	
LWOW	15.30	353.5	3	37	2	6	36	12					
NIEDZIKA	15.50	344.3	3	36	-2								
PADOVA	15.60	318.0	3	39	0						4	29	
TIFLIS	15.90	58.3	3	45A	2								
KRAKOW	16.18	344.2	3	46	-1						3	51	PP
GORIS	16.42	67.1	3	51	1	6	55	5					
CHIAVARI	16.49	311.1	4	15	24	7	4	16			8	52	
RACIBORZ	16.63	340.6	3	52	0						4	2	PP
KIROVOBAD	16.67	63.1	3	53A	0								
PAVIA	17.03	313.4	4	13	16	7	42	38			8	37	
GROZNY	17.15	54.0	3	53A	-6								
KASPERSKE H.	17.42	330.2	4	0	-2						7	18	
MONACO	17.43	307.1	4	2	0								
PRUHONICE	17.72	333.6	4	5A	-1	7	30	10			8	46	
CHUR	17.77	318.5	4	12	5	7	38	17					
PRAGUE	17.84	333.5	4	7A	0	7	31	8					
ISOLA	17.87	308.1	4	7	-1	7	41	17					
MAKHACH-KALA	18.21	56.6	4	13	1								
RAVENSBURG	18.30	321.0	4	12	-1								
EBINGEN	18.89	321.1	4	19	-1								
TUBINGEN	19.07	322.0	4	21	-2								
STUTTGART	19.12	322.9	4	22	-1	7	55	3			4	34	PP
BASLE	19.25	317.7	4	22	-3	8	9	15					
NEUCHATEL	19.31	315.7	4	24	-1								
COLLMBERG	19.37	333.4	4	23A	-3						4	42	PP
JENA	19.63	330.6	4	27	-2	8	1	-2			5	15	
STRASBOURG	19.77	320.5	4	29	-1	8	18	12			5	2	
HEIDELBERG	19.81	323.6	4	34	3								
HALLE	19.93	332.2	4	29	-3	7	59	-10					
BESANCON	20.00	315.3	4	32	-1						4	49	
FELDBERG	20.49	325.0	4	22	-16								
CLERMONT-FD.	21.07	308.9	4	43	-1	8	42	10					
TORTOSA	21.56	294.4	4	49	0	8	50	9					
BENSBERG	21.59	325.9	4	48A	-1	8	53	11			7	39	
GARCHY	21.74	312.6	4	49	-2						5	42	
ALICANTE	22.11	287.6	4	52	-2	8	57	6			5	24	PP
BAGNERES	22.24	300.1	5	4	8						6	14	
DOURBES	22.34	320.5	4	56	-1	8	58	3					

MOSCOW	22.41	16.4	4	57A	0	8	56	-1				
SHIRAZ	22.42	95.6	4	58A	1	9	3	6			9	20 SS
PARIS	22.81	315.7	5	16	15	9	4	0			5	52
KARLSKRONA	22.83	343.9	4	57	-4							
WITTEVEEN	23.09	328.0	5	4	0							
COPENHAGEN	23.22	339.3	5	5	0	9	18	7				
DE BILT	23.28	325.1	5	8	2	9	18	6				
ALMERIA	23.72	283.8	5	11K	1	9	31	11			5	49 PP
FOLINIERE	24.54	313.4	5	17	-1							
GRANADA	24.60	284.7	5	25A	6	9	55	20	5	31	6	54 PP
BENI ABBES	24.74	267.6	5	20	0	9	49	12			6	8 PPP
TOLEDO	24.93	291.2	5	21A	-1	9	49	8			6	7 PP
GOTEBORG	25.10	341.3	5	21	-2							
PULKOVO	25.26	4.3	5	25A	0	9	45	-1				
MALAGA	25.27	283.8	5	25K	0	9	58	12			6	8 PP
VANNOVSKAYA	25.48	73.4	5	29	2							
HELSINKI	25.57	358.0	5	28	0							
ASHKABAD	25.68	73.3	5	30	1							
KEW	25.71	319.1	5	29	0	10	7	13				
UPPSALA	25.91	349.5	5	29	-2	9	57	0				
NURMIJARVI	25.92	357.7	5	30	-1	9	54	-3				
KONGSBERG	27.41	341.1	5	43	-2	10	18	-3				
KAJAANI	29.48	0.9	6	2	-1							
ABERDEEN	29.75	328.1									7	52
SKALSTUGAN	30.31	347.3	6	8A	-3							
BANGUI	31.02	195.7	6	15	-2	11	17	-2				
SVERDLOVSK	31.94	35.5	6	24K	-1	11	34	1				
SODANKYLA	32.78	360.0	6	31	-1	11	43	-3				
APATITY	33.19	4.7	6	34A	-2	11	51	-2			6	50 *SP
KIRUNA	33.43	355.7	6	36	-2						12	13
DUZHANBE	33.81	70.8	6	42A	1							
TASHKENT	33.98	65.8	6	43A	0	12	10	5				
QUETTA	34.14	86.0	6	44A	0				6	54	8	6 PP
KEVO	35.18	0.2	6	51	-2	12	26	2			12	12
TROMSOE	35.31	355.3	6	52	-2							
KARACHI	36.19	94.6	7	4	2							
LWIRO	36.75	176.4	7	6K	0							
WARSAK DAM	36.84	77.9	7	7A	0							
LAHORE	39.76	80.6	7	30	-2							
ALMATA-2	39.83	61.9	7	33K	1							
SIDA	39.90	330.8	7	32	-1							
SEMIPALATNSK	41.58	50.9	7	48	1							
REYKJAVIK	41.60	330.3	7	48A	1							
NEW DELHI	43.09	83.6	7	59A	0							
DEHRA DUN	43.18	80.9	8	0	0						14	40
SCORESBY SD.	44.27	338.8	8	10	2							
BROKEN HILL	48.84	177.7	8	45	0							
NORD	49.62	352.4	8	51	0							
BANDEIRA	50.87	196.7	9	0K	0							
ESEN BULAK	52.59	54.7	9	13A	0	16	40	3				
BULAWAYO	54.50	177.8	9	26	-1							
ALERT	55.76	350.8	9	34	-2	17	19	0				
SHILLONG	56.27	80.3	9	38A	-2						10	14
TANANARIVE	56.84	156.2	9	46	2							
CHITTAGONG	57.67	83.8	9	35	-15				9	46		
THULE	57.80	343.8	9	48	-3							
ULAN-BATOR	59.15	50.5	10	2	2	18	7	3				
LANCHOW	61.31	64.2	10	16A	1	18	35	3				
CHENGTU	63.72	69.7	10	29	-2	19	2	0				
PAOTOW	63.94	57.4	10	32A	0							
SCHEFFERVLLE	64.36	320.1	10	34	-1							
KUNMING	65.24	75.7	10	41	0	19	21	0				
YAKUTSK	65.73	30.3	10	42	-2							
SIAN	65.85	64.1	10	45A	0							
HALIFAX	66.84	309.0	10	51K	0							
PEKING	68.41	55.7	11	1A	0	20	5	6				
CHANGCHUN	72.49	48.6	11	25	-1							
BREBEUF	72.63	313.5	11	27K	1	20	58	10	11	37		
WESTON	72.84	309.8	11	28	0	20	56	6				
NANKING	74.15	61.9	11	35	0							
PALISADES	75.21	309.7	11	51	10	21	23	6				
FORDHAM	75.28	309.5	11	42	0							
HONG KONG	75.71	72.7				21	30	7			22	22 SCS
ZO-SE	76.40	61.6	11	48	0							
PENNSYLVANIA	77.81	311.3	11	57K	1							
LONDON ONT.	78.50	314.6	12	1	1							
Y.-SAKHLINSK	80.51	38.6	12	11	0							
COLLEGE	80.73	357.6	12	11	-1							
CHAPEL HILL	81.42	307.8	12	16	1							

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SAN JUAN	82.00	286.7	12	19	1					
TRINIDAD	82.46	277.7	12	24	3					
COLUMBIA	83.88	307.3	12	30	2					
BLOOMINGTON	84.03	314.1	12	28	-1	22	50	0		
DUBUQUE	84.21	318.7	12	30	0					
MATUSIRO	84.74	48.8	12	33A	1	22	58	1		
FLORISSANT	86.55	315.8	12	41	0					
ST. LOUIS 1	86.58	315.6	12	42	1					
CARACAS	87.05	280.6	12	44A	0				24	41
ROLLA	88.04	316.0	12	50	2	23	32	4		
RAPID CITY	89.35	326.4	12	56	1				13	59
MANHATTEN	89.72	319.5	12	57K	1					
HUNGRY HORSE	90.24	335.0	12	59	0					
PENTICTON	91.20	338.7	13	4K	1					
BOZEMAN	91.40	331.8	13	5	1					
TULSA	91.66	316.7	13	6	1					
BUTTE	91.69	332.9	13	5	-1					
WICHITA MTS.	94.09	317.6	13	17	0				16	56 PP
BLUE MTS.	94.40	335.2	13	17	-1				16	58 PP
FLAMING GRGE	94.62	328.2	13	16	-3					
SALT LAKE C.	95.80	329.6	13	25	1					
DUGWAY	96.68	329.9	13	29K	1					
ALBUQUERQUE	98.07	322.7	13	36	1					
EUREKA	98.57	331.6	13	38	1					
UKIAH	101.49	336.5	13	9	-41					
SOUTH POLE	124.46	180.0	18	56	0					
CHARTERS TS.	125.16	91.3	19	0	2					
BYRD STATION	132.58	187.6	19	11	-1				22	38 SKP
CANBERRA	133.33	108.2	19	29	16					
SCOTT BASE	133.39	169.2	19	15	2					

SEPTEMBER 10 15.H 43.M 58.S EPICENTRE -21.27-179.10 DEPTH= 618.KM

A=-0.93260 B=-0.01459 C=-0.36062 D=-0.0156 E= 0.9999
G= 0.3606 H= 0.0056 K=-0.9327 HT= 4.4

DEPTH OF FOCUS= 0.092R

SE= 1.71

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
RAOUL ISLAND	8.02	172.6	2	1	1	3	36	-1					
APIA	10.19	44.4	2	21	0	4	13	-1					
PORT VILA	12.37	284.4	2	44A	2	5	2	10					
NOUMEA	13.46	263.0	2	53A	0	5	23	11					
ONERAHI	15.54	200.2	3	17	4	5	57	9					
KOUMAC	15.54	269.6	3	14A	1								
KARAPIRO	17.24	194.4	3	31	2						10	12	SCP
TUAI	17.77	189.6	3	31	-3	6	23	-3			10	13	SCP
CHATEAU	18.45	193.2	3	37	-3	6	45	8			10	13	SCP
TARATA	18.72	196.0	3	44	1						10	14	SCP
WELLINGTON	20.61	193.2	3	59K	-1	7	6	-6			10	20	SCP
COBB RIVER	20.93	197.5	4	2	-1								
KAIMATA	22.63	198.4	4	17	-1	7	40	-5					
HONIARA	23.34	297.1	4	23	-1						7	53	
ROXBURGH	25.95	198.8	4	46	-1	8	2	-35			10	35	SCP
BRISBANE	26.30	251.0	4	49A	-1	8	40	-3					
RIVERVIEW	29.08	238.2	5	15A	1	9	22	-4	6	54	8	9	PCP
CANBERRA	31.23	236.5	5	33A	0	9	57	-2	7	14	13	9	SS
CHARTERS TS.	32.39	265.8	5	42	0	10	11	-5					
RABAUL	32.65	297.3	5	43	-1	10	14	-6			8	27	
PORT MORESBY	34.53	284.8	6	0A	0	10	46	-3			7	36	PP
TOOLANGI	34.61	234.1	6	1	0				7	44	8	12	PCP
SAVANNAH	34.92	226.5	6	4	1						11	6	
MOORLANDS	35.23	225.4	6	6	0						10	44	
TARRALEAH	35.66	226.0	6	10	1						11	9	
MACQUARIE I.	37.10	201.2	6	23K	2								
ADELAIDE	39.34	240.4	6	38A	-1	11	56	-3			8	30	PP
HAWAII V.OR.	46.69	31.6	7	36	-1	13	41	-2					
HONOLULU	47.02	27.2	7	38	-1	13	49	2			17	19	SS
KIPAPA	47.16	27.2	7	39	-1						8	59	PCP
DARWIN	48.56	272.1	7	50	-1	14	6	-2					
GUAM	49.51	311.0	7	56	-2	14	22	1			12	4	SCP
CAPE HALLETT	51.42	184.2	8	12	1								
DUMONT	52.29	199.2	8	17	-1	14	58	0			10	13	PP
SCOTT BASE	57.04	183.5	8	51	0						10	51	

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MUNDARING	58.06	244.9	8	57K	0	16	9	-4					
WILKES	62.85	205.3	9	29	-1	17	10	-2	11	28	20	41	*SS
BYRD STATION	64.06	170.4	9	25	-11	17	30	4			11	39	PP
MANILA	68.71	296.1	10	5	0	18	21	0					
SOUTH POLE	68.86	180.0	10	5	-1	18	21	-1			12	13	
TUKUBASAN	68.97	325.5	10	5A	-1	18	18	-6	12	13	12	42	PP
MIRNY	69.87	205.2	10	11	-1	18	31	-3			12	42	PP
MATUSIRO	70.22	324.5	10	13	-1	18	39	1					
ABUYAMA	70.49	321.7	10	15K	0								
MIZUSAWA	70.67	328.2	10	18	2								
LEMBANG	71.99	269.6	10	24K	0	18	57	0					
DJAKARTA	72.95	269.9	10	27	-2	19	7	-1					
Y.-SAKHLINSK	76.19	334.2	10	47K	0	19	44	1					
PETROPAVLOVK	76.46	346.4	10	48K	-1	19	58	12					
ZO-SE	77.40	310.6	10	54K	0	19	55	0					
NHATRANG	77.84	288.3	10	58	2								
HONG KONG	78.16	299.6	10	59K	1	20	6	3			11	10	PCP
CANTON	79.21	300.0	11	5K	2	20	16	2			14	19	*SP
PRIEST	79.43	44.6	11	6K	1	20	23	7			37	54	
BERKELEY	79.44	42.4	11	6K	1	20	20	4			14	22	PP
LICK	79.51	43.1	11	6K	1						11	56	
UKIAH	79.62	40.9	11	7	1	20	43	25	13	23	20	23	SKS
NANKING	79.64	310.3	11	7K	1	20	21	3			14	19	*SP
CALISTOGA	79.71	41.6	11	6K	0	20	23	4			40	21	
PASADENA	79.96	47.4	11	7	0	20	26	4	13	20	14	20	*SP
MAWSON	80.49	200.1	11	9K	-1	20	26	-1	13	22	14	29	PP
MINERAL	81.35	40.7	11	14K	0						13	31	
RENO	81.97	42.2	11	18	0	20	40	-2					
CHANGCHUN	82.38	323.0	11	19K	-1						14	34	*SP
BOULDER CITY	83.25	47.4	11	25	1	21	0	6	13	34	11	35	PCP
TUCSON	84.20	52.3	11	30	1	22	8	65	13	42	14	48	PP
EUREKA	84.38	43.9	11	30	0	21	8	3	13	45	29	37	PKKP
LONGMIRE	85.14	35.5	11	32	-1	21	14	2					
VICTORIA	85.40	33.4	11	34K	0								
SEATTLE	85.44	34.6	11	37	2								
PEKING	85.71	315.9	11	36K	0	21	20	3			14	54	*SP
GLEN CANYON	86.00	47.9	11	38	1								
BLUE MTS.	86.55	38.9	11	40K	0	21	28	3	13	54	14	57	PP
DUGWAY	86.83	44.6	11	42K	1	21	41	14			14	54	*SP
SALT LAKE C.	87.75	44.5	11	45	-1								
PRICE	87.85	45.9	11	46K	0								
PENTICTON	87.87	34.3	11	44K	-2								
SIAN	87.88	308.0	11	48	2	21	44	7			15	6	*SP
ALBUQUERQUE	88.69	51.7	11	50	0	21	51	7			21	20	SKS
KUNMING	88.78	297.4	11	52	2	21	51	6			15	6	*SP
COLLEGE	89.18	12.8	11	50	-2	21	48	-1			21	20	SKS
FLAMING GRGE	89.45	45.3	11	54	1	21	26	-25					
BUTTE	89.99	39.7	11	56	0	22	1	5	14	12	28	10	PKKP
CHENGTU	90.04	302.9	11	57K	1	22	2	6	14	14	15	15	*SP
PAOTOW	90.05	314.0	11	56K	0						15	12	*SP
HUNGRY HORSE	90.37	37.2	11	56	-2	21	29	-30			29	22	PKKP
BOZEMAN	90.73	40.6	11	59	0	22	8	6	14	15	28	24	PKKP
BANFF	91.07	34.3	12	0K	-1								
LUBBOCK	91.53	54.5	12	4	1						21	25	
GOLDEN	91.60	47.8	12	4	1	21	40	-30					
LANCHOW	92.41	307.8	12	8K	1	22	25	8			15	19	*SP
YAKUTSK	92.42	338.4									15	57	PP
PORT BLAIR	92.49	281.5									21	41	
SANTA LUCIA	92.82	127.4				21	43	-37	14	35			
WICHITA MTS.	94.46	54.6	12	15	-1	22	17	-17	14	33	16	20	PP
ULAN-BATOR	95.39	319.5	12	9	-12				14	39			
TULSA	97.03	54.3	12	22	-6	22	8	2			24	22	SP
SHILLONG	98.08	294.2	12	33A	0						16	50	
HUANCAYO	98.19	106.3									16	46	PP
CALCUTTA	100.10	290.2									26	21	
LHASA	100.10	297.8	12	43	1								
ROLLA	100.64	53.5	12	44	0								
ESEN BULAK	101.54	315.3	12	47	-1						17	6	PP
ST. LOUIS 1	102.12	53.2	12	51	0								
CHATRA	102.48	294.0	17	9	257								
DUBUQUE	102.93	49.3	12	54	0	23	52	77					
MOULD BAY	103.75	12.3	17	10K	252								
MADRAS	104.46	278.5									24	5	
BLOOMINGTON	105.06	53.5	13	12	777	24	10	86					
BOGOTA	105.66	91.1									17	38	PP
FUQUENE	106.28	90.4									17	47	PP
RESOLUTE	108.82	16.2	17	19	777								
LONDON ONT.	109.85	50.5	17	22	777								
DEHRA DUN	111.13	295.3	17	26	2						25	0	

NEW DELHI	111.46	293.3	17	24A	-1						
SEMIPALATNSK	112.79	317.0	17	27	0						
BOMBAY	112.96	282.2								25	16
ALMATA-2	113.93	309.0	17	29K	-1						
ALERT	114.37	7.4	17	29A	-2						
PALISADES	114.88	53.6				24	11	47		28	47 *SSKS
BREBEUF	115.56	48.7	17	32	-1					18	46 PP
WARSAK DAM	117.22	298.2	17	32	-4						
SAN JUAN	117.31	79.7	17	36	0	23	31	-2		24	25 S
NORD	119.17	2.9	17	40	0						
TANANARIVE	119.33	232.2	17	44	4					18	24
TRINIDAD	119.50	89.6	17	42	1					27	59
TASHKENT	119.74	306.2	17	40	-1	23	41	0			
SCHEFFERVLLE	119.94	38.2	17	41A	0						
DUZHANBE	119.95	303.1	17	43	2	24	28	46			
ST. KITTS	120.17	81.8	17	42	0						
GRAHAMSTOWN	120.44	204.9	17	54	12						
QUETTA	120.54	293.2	17	44K	1	23	48	4	20 22	19	21 PP
FORT FRANCE	120.94	85.2	17	43	0					18	28
BERMUDA	121.23	64.3	17	46	2	24	18	32			
HALIFAX	122.63	49.9	17	46K	-1						
SVERDLOVSK	124.03	325.0	17	48A	-1						
KIMBERLEY	125.19	205.8	17	53	1						
ASHKABAD	128.14	302.1	17	57	0					20	11 PP
VANNOVSKAYA	128.33	302.1	17	43	-15				20 14		
SCORESBY SD.	128.94	9.7	17	58K	-1					21	24 PKS
KEVO	129.02	348.6	17	47	-12	24	22	13		21	22 PKS
APATITY	129.42	344.5	17	48A	-12	24	0	-10	20 17	20	24 PP
KIZYL-ARVAT	129.70	303.8	17	55	-5				20 21		
TROMSOE	130.42	351.8	17	48	-14						
BULAWAYO	130.72	215.2	17	44K	-18					18	2 PP
SODANKYLA	131.12	347.1	17	46	-17					20	28 SKP
KIRUNA	131.86	350.2	17	51	-13					21	30 PKS
SHIRAZ	132.96	291.2	17	46	-20					18	7
KAJAANI	133.61	344.1	17	53	-15						
WINDHOEK	133.65	200.9	17	57	-11					20	40
REYKJAVIK	134.53	13.8	17	59	-10					20	44 PP
BROKEN HILL	135.36	219.7	17	58	-13					18	0 PP
SIDA	135.64	11.9	18	4	-7					20	49 PP
MAKHACH-KALA	135.67	310.3	18	11	0				20 46		
MOSCOW	136.07	330.8	18	11K	-1						
PULKOVO	136.23	338.9	18	12K	0						
SKALSTUGAN	137.02	352.6	18	3	-11					20	49 SKP
GORIS	137.30	305.6	18	5A	-9						
NURMIJARVI	137.37	342.9	18	4	-11					20	49 SKP
HELSINKI	137.57	342.4	18	5	-10					20	52 SKP
TIFLIS	137.92	309.2	18	16K	0					20	54 PP
UPPSALA	139.66	347.0	18	10	-9					20	56 SKP
BERGEN	140.78	356.5	18	15	-7					21	32 PP
SOTCHI	140.88	313.8	18	14	-8					21	59 PKS
BANDEIRA	142.05	199.8	18	22A	-2				20 42	21	6 SKP
GOTEBORG	142.72	350.2	18	20	-5					21	5 SKP
KARLSKRONA	143.48	346.2	18	22	-4					21	5 SKP
SIMFEROPOL	143.90	318.7	18	25K	-2					21	52 PP
LWIRO	144.06	232.8	18	29	2						
COPENHAGEN	144.57	348.7	18	28K	0						
WARSAW	145.39	338.1	18	30	1				20 55	21	52 PP
KISHINEV	145.77	325.3	18	29	-1				20 58		
LWOW	146.13	332.8	18	29	-1				21 0		
DURHAM	146.50	2.6	18	32K	1				19 54	22	2 PP
KSARA	146.72	299.6	18	33A	2	25	41	61	21 3	22	57 PP
KRAKOW	147.57	336.9	18	32	0					18	36 PKP2
JERUSALEM	147.67	296.1	18	34K	2				21 7		
LUANDA	147.71	203.3	18	40	7				21 6		
UZHGOROD	147.77	333.0	18	33	0						
RACIBORZ	148.16	338.7	18	35	2					18	39 PKP2
WITTEVEEN	148.19	353.3	18	34A	1						
COLLMBERG	148.57	345.4	18	33K	-1						
HALLE	148.62	346.7	18	34	0					18	39 PKP2
DE BILT	149.05	354.9	18	34	0					21	0
ISTANBUL UN.	149.12	316.0	18	35A	0						
JENA	149.23	346.7	18	34	-1				21 6	22	14 PP
PRAGUE	149.33	342.8	18	38	3				21 11	22	12 *SPKP
PRUHONICE	149.38	342.6	18	35K	0				21 7	28	11 SKKS
KEW	149.84	1.5	18	36	0					18	49 PKP2
CHEB	149.85	345.2	18	41	5				21 4	19	34
BENSBERG	149.96	352.1	18	36	0				21 10	22	30 PP
HURBANOVO	150.02	336.4	18	42	6					21	4

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

BUDAPEST	150.03	335.0	18	34	-2				22	2	
BRATISLAVA	150.17	337.9	18	48	12				18	54	PKP2
VIENNA-H.	150.35	338.9	18	36	0						
KASPERSKE H.	150.42	343.0	18	36K	0	21	7		22	22	PP
TIMISOARA	150.45	330.5	18	44A	8						
FELDBERG	150.50	350.1	18	40	3				19	3	
DOURBES	151.08	355.1	18	38	1				22	33	PP
HEIDELBERG	151.25	349.3	18	39	1						
BELGRADE	151.50	330.0	18	39A	1				22	34	PKS
SOFIA	151.55	323.8	18	38	0	20	47		18	58	PKP2
STUTTGART	151.75	348.2	18	38	0				22	23	PP
TUBINGEN	152.02	348.4	18	39	0						
STRASBOURG	152.20	350.2	18	40	1				22	31	PP
EBINGEN	152.38	348.3	18	39	0				19	1	
PARIS	152.49	357.7	18	48	9				22	26	PP
FOLINIERE	152.54	2.0	18	39	-1						
ZAGREB	152.57	336.7	17	42	-58				21	38	
RAVENSBURG	152.63	347.1	18	40	0				19	2	
LJUBLJANA	152.89	338.9	18	40K	0	21	16		22	42	PP
BASLE	153.25	349.9	18	49	8				19	5	
TRIESTE	153.49	339.5	18	40	-1	21	18		22	45	PP
CHUR	153.53	346.6	18	42	1				19	7	
BESANCON	153.76	352.2	18	41	0						
NEUCHATEL	153.86	350.6	18	43	2						
GARCHY	153.99	356.6	18	42	0				22	40	PP
ATHENS	154.21	315.2	18	42K	0				19	9	
PADOVA	154.29	342.0	18	52	10				22	42	PP
PAVIA	155.20	346.0	18	44	1				22	39	
CLERMONT-FD.	155.49	356.2	18	45	1			21	11		
FLORENCE X.	155.95	341.4	18	44	0				23	12	PP
BANGUI	155.96	228.2	18	45	1				22	20	PKS
AQUILA	156.50	336.3	18	46	1	24	42 -10	21	6	23	2 PP
ISOLA	156.59	348.8	18	47	2				19	22	
MONACO	156.95	347.8	18	47	1				23	2	PP
ROME	157.23	337.2	18	46K	0				23	12	PP
BAGNERES	158.25	1.5	18	48	1				19	30	
SERRA PILAR	158.63	20.0	18	48A	0				23	10	PP
MESSINA	158.91	326.4	18	47	-1	24	56 2	20	49	23	7 PP
TORTOSA	160.51	0.9	19	32	42				23	18	PP
LISBON	160.58	24.2	19	0	10				23	20	PP
TOLEDO	160.97	11.7	18	52K	2			21	17	23	25 PP
ALICANTE	162.93	3.7	18	54	2					23	34 PP
GRANADA	163.67	12.9	18	55A	2					23	34 PP
MALAGA	163.93	15.5	18	52K	-1					23	38 PP
ALMERIA	164.20	10.0	18	51	-2					23	41 PP
BENI ABBES	170.76	16.8	18	54	-4			21	26	24	5 PP

SEPTEMBER 10 17.H 49.M 12.S EPICENTRE -17.64-173.09 DEPTH= 0.KM

A=-0.94664 B=-0.11479 C=-0.30117 D=-0.1204 E= 0.9927
G= 0.2990 H= 0.0363 K=-0.9536 HT= 5.2

SE= 2.22

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
APIA	4.02	18.4	0	59A	-5	1	42	-11				
ONERAHI	21.22	209.2	4	52	2							
KARAPIRO	22.54	204.0	5	4K	1							
TUAI	22.74	200.0	5	5	0							
CHATEAU	23.66	202.5	5	12	-2							
TARATA	24.09	204.4	5	21	3							
WELLINGTON	25.77	201.4	5	39	5							
BRISBANE	32.90	246.7	6	36	-2	12	12	16				
RABAUL	36.55	287.3									8	35
CANBERRA	37.95	234.8	7	19	-2							
CHARTERS TS.	38.48	259.7	7	23	-3							
PORT MORESBY	39.45	276.7	7	33	-1	13	57	20				
TOOLANGI	41.32	232.8	7	47	-2							
DUMONT	57.60	200.1	9	53	-1							
SCOTT BASE	61.06	184.8	10	19	1							
BYRD STATION	66.71	171.2	10	54	-1							
WILKES	66.53	204.9	11	3	-4							
MATUSIRO	70.84	320.2	11	19	-2	20	42	6				
SOUTH POLE	72.47	180.0	11	29	-2							
PRIEST	72.91	42.2	11	34A	1							

BERKELEY	72.99	39.9				21	4	4		25	56
LICK	73.03	40.7	11	35	1						
CALISTOGA	73.28	39.1	11	41A	6						
PASADENA	73.37	45.1	11	36	0					12	4
MINERAL	74.95	38.3	11	44	-1						
MIRNY	75.53	204.4	11	46	-2	21	29	0			
BOULDER CITY	76.66	45.1	11	56	1						
LEMBANG	77.79	266.7	12	0A	-1						
EUREKA	77.88	41.7	12	2	1						
ZO-SE	79.55	307.3	12	11	0	22	23	11			
BLUE MTS.	80.22	36.6	12	13	-1						
DUGWAY	80.30	42.4	12	14	-1						
SALT LAKE C.	81.22	42.4	12	24	5						
HONG KONG	81.47	296.6	12	23	2	22	51	19			
PENTICTON	81.74	32.1	12	20K	-2						
NANKING	81.81	307.2	12	24	1						
CANTON	82.48	297.0	12	28	2						
FLAMING GRGE	82.90	43.2	12	28	0						
CHANGCHUN	83.09	320.1	12	29	0						
BUTTE	83.63	37.6	12	31	-1						
HUNGRY HORSE	84.10	35.1	12	31	-3						
COLLEGE	84.50	10.6	12	35	-1					12	53
MAWSON	85.78	198.6	12	42K	-1				12	52	
PEKING	87.22	313.5	12	50A	0	23	41	12		23	17 SKS
WICHITA MTS.	87.75	52.6	12	52	0	23	30	-4		25	3 PPS
SIAN	90.25	305.9	13	6	2						
PAOTOW	91.74	312.1	13	13	2	24	24	14			
KUNMING	92.26	295.5	13	16	3	24	30	15		23	50 SKS
CHENGTU	92.94	301.1	13	18	1	24	33	12		23	53 SKS
LANCHOW	94.78	306.2	13	28	3						
QUETTA	124.27	294.8	19	3A	2						
WITTEVEEN	144.89	0.3	19	40	1						
HALLE	145.98	354.4	19	42	1						
KRAKOW	146.01	344.9	19	43	2						
COLLMBERG	146.07	353.2	19	43A	2					19	45 PKP2
RACIBORZ	146.39	346.8	19	45	3						
JENA	146.58	354.6	19	44	2					23	25 PP
BENSBERG	146.76	359.7	19	44A	2					20	12
BANDEIRA	147.06	191.4	19	46K	3						
PRAGUE	147.09	351.1	19	48	5						
PRUHONICE	147.16	350.9	19	47	4					21	21
DOURBES	147.56	2.8	19	48	4						
KASPERSKE H.	148.13	351.7	19	47	2					20	16
FOLINIERE	148.37	9.3	19	48	3						
BRATISLAVA	148.43	346.9	19	58	13					21	33
VIENNA-H.	148.51	347.9	19	48	3						
STUTTGART	148.89	357.0	19	49	3						
STRASBOURG	149.13	358.9	19	52	6						
KSARA	149.47	307.5	19	51A	4						
BESANCON	150.46	1.3	19	54	6						
BELGRADE	150.62	340.2	19	54K	5					21	11
LWIRO	150.74	229.7	19	57K	8						
JERUSALEM	150.79	304.2	19	57	8						
LJUBLJANA	150.97	349.0	19	52	3					20	34
BAGNERES	154.01	11.4	20	5	11						
TOLEDO	155.88	21.0	20	0	4					20	31 PKP2
MALAGA	158.53	25.5	20	35K	36						
ALMERIA	159.15	21.6	20	10	10					20	47 PKP2
BANGUI	162.53	222.4	20	8	4						

SEPTEMBER 11 17.H 51.M 8.S EPICENTRE 26.93 143.06 DEPTH= 0.KM
A=-0.71362 B= 0.53653 C= 0.45042 D= 0.6009 E= 0.7993
G=-0.3600 H= 0.2707 K=-0.8928 HT= 2.8

SE= 3.03

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
TUKUBASAN	9.60	345.5	2	19A	-3							
MATUSIRO	10.43	337.9	2	30A	-4	4	22	-11				
GUAM	13.49	173.0	3	13	-4							
ZO-SE	19.58	287.4				8	13	5				
Y.-SAKHLINSK	20.06	359.3	4	36	-2	8	1	-17				
NANKING	21.73	289.4	4	52	-3	8	49	-2				
CHANGCHUN	22.15	324.2	4	59	0	9	3	4				
MANILA	23.85	243.6	5	20	4						12	58

PEKING	25.85	307.2	5	31	-4					
PETROPAVLOVK	28.54	19.9	6	9	10					
SIAN	30.18	292.4	6	12A	-2					
RABAUL	32.17	162.8	6	43	11					
ULAN-BATOR	35.10	316.3	6	54	-3					
PORT MORESBY	36.33	173.2	7	4	-3					
SHILLONG	45.68	280.3	8	21K	-3					
CHITTAGONG	46.55	276.1	8	29	-2					
CHARTERS TS.	46.84	175.9	8	32	-1					
LEMBANG	48.00	230.8	8	40K	-3					
BRISBANE	54.81	169.4	9	41	7					
LAHORE	59.27	292.2	10	10	4					
WARSAK DAM	60.93	295.6	10	15	-2					
CANBERRA	62.16	174.5	10	23	-2					
POONA	63.71	278.4	10	33K	-3					
TOOLANGI	64.19	177.9	10	38	-1					
QUETTA	65.74	292.8	10	46A	-3	19 19 -16		10 57		
MOULD BAY	65.86	15.1	10	48K	-1					
ALERT	70.11	3.5	11	14	-2					
APATITY	72.50	337.7	11	29K	-1					
KEVO	73.39	341.0	11	37	1					
SODANKYLA	74.84	339.0	11	43	-1					
KIRUNA	76.47	340.8	11	54	1					
MINERAL	76.88	51.4	11	54K	-2					
CALISTOGA	76.88	53.3	11	53K	-3					
SHIRAZ	77.62	297.0	11	58A	-2	21 25 -26			15 20	PP
BLUE MTS.	77.86	45.8	12	1	0				12 21	
LICK	78.09	54.2	12	2K	0				12 21	
HUNGRY HORSE	78.32	41.6	12	4	1					
UMEA	79.11	337.7	12	6	-2					
PRIEST	79.31	55.0	12	9K	0					
NURMIJARVI	79.56	333.7	12	8K	-2					
HELSINKI	79.64	333.4	12	10	-1					
BUTTE	80.29	43.2	13	14	60					
EUREKA	81.15	50.3	12	19	0					
BOZEMAN	81.39	43.0	12	20	0					
PASADENA	82.02	55.9	12	23	0					
UPPSALA	82.67	335.5	12	29	2					
DUGWAY	82.95	48.5	12	28K	0					
SALT LAKE C.	83.31	47.6	12	30	0					
BOULDER CITY	83.59	52.9	12	31	0					
FLAMING GRGE	84.84	46.5	12	38	0					
GOLDEN	88.09	45.9	12	55	1					
ALBUQUERQUE	89.98	50.3	13	3	0					
COLLMBERG	90.58	331.3	13	4	-1				16 38	PP
PRUHONICE	90.86	329.7	13	6	-1				13 27	
JENA	91.46	331.7	13	22	13					
KASPERSKE H.	91.91	329.5	13	9	-2				13 31	
LJUBLJANA	93.68	326.9	13	20	0				13 42	
WICHITA MTS.	95.38	46.7	13	27	0				14 1	

SEPTEMBER 12 18.H 18.M 38.S EPICENTRE -4.32 145.44 DEPTH= 0.KM

A=-0.82126 B= 0.56563 C=-0.07478 D= 0.5672 E= 0.8236
G= 0.0616 H=-0.0424 K=-0.9972 HT= 7.1

SE= 2.62

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
RABAUL	6.71	89.3	1	43	1	3	14	13					
HONIARA	15.27	110.2	3	40	1	7	36	67					
CHARTERS TS.	15.70	177.2	3	46	2								
DARWIN	16.52	240.1	3	54	-1	6	51	-8					
GUAM	17.68	357.7	4	6	-3	7	48	23					
BRISBANE	23.99	163.8	5	18	1	9	33	1					
KOUMAC	24.42	133.0	5	18A	-3								
PORT VILA	26.06	122.5	5	37	0								
NOUMEA	27.08	133.2	5	45	-1								
RIVERVIEW	29.84	170.4									12	37	
MANILA	30.64	308.4	6	15	-3	11	21	0					
CANBERRA	31.02	174.4	6	21	-1				6	31			
ADELAIDE	31.13	190.7	6	26	3						8	30	
BAGUIO CITY	32.08	310.6	6	36	5	11	52	9					
TOOLANGI	33.09	179.9	6	40	0						7	56	PP
LEMBANG	37.72	264.5									8	48	

MUNDARING	38.83	221.5	7	31	2							
PERTH	39.07	221.8				13	33	2			16	2
HONG KONG	40.44	312.2	7	44	2	13	54	3				
MATUSIRO	41.20	351.1	7	48K	0	13	37	-26				
CANTON	41.52	312.4	7	53A	2	14	11	4				
ZO-SE	42.15	328.3	7	55	-1	14	17	0				
KARAPIRO	43.28	144.7	8	3	-2							
CHATEAU	44.15	146.0	8	13	1							
NANKING	44.18	326.9	8	13	0	14	49	3				
GEBBIES PASS	45.99	152.5	8	27	0							
KUNMING	50.75	307.4	9	6A	2	16	25	6				
Y.-SAKHLINSK	51.17	357.6	9	7	0							
CHANGCHUN	51.24	341.4	9	7	-1	16	27	1				
SIAN	51.54	321.0	9	11	1	16	31	1				
PEKING	51.68	331.4	9	10	-1	16	32	0				
CHENGTU	52.68	314.2	9	18A	-1	16	46	0				
PAOTOW	55.21	327.5	9	37	0	17	22	2				
LANCHOW	55.92	319.5	9	43A	1	17	32	3				
PETROPAVLOVK	58.20	9.3	10	3	4	18	8	8				
CHITTAGONG	58.72	299.3	10	0	-2						10	10
SHILLONG	59.82	302.8	10	10A	0							
ULAN-BATOR	62.01	331.7	10	24	-1	18	50	1				
LHASA	62.06	306.7	10	26A	1	18	52	3				
CHATRA	64.21	302.4	10	32	-7							
IRKUTSK	66.26	333.8	10	51	-1							
WILKES	66.52	194.6	10	56	2							
ESEN BULAK	66.61	325.2	10	53	-2	19	51	6				
YAKUTSK	67.25	352.0	10	59K	0							
MIRNY	71.83	199.5	11	24	-3							
NEW DELHI	73.17	301.4	11	33A	-2							
SCOTT BASE	74.34	175.4	11	53	12							
ALMATA-2	77.24	316.0	12	0A	2							
SEMIPALATNSK	77.86	323.5	12	0	-1							
FRUNSE	79.03	314.9	12	8A	0							
WARSAK DAM	79.15	305.6	12	9	1							
QUETTA	82.25	301.1	12	26	1						12	36
DUZHANBE	82.31	309.7	12	26	1							
TASHKENT	82.50	312.5	12	26	0							
COLLEGE	84.23	23.2	12	35	0							
SOUTH POLE	85.71	180.0	12	39	-3							
BYRD STATION	86.65	170.0	12	44	-3							
ASHKABAD	90.33	307.9	13	5	0							
SVERDLOVSK	90.74	326.8	13	5A	-1							
CALISTOGA	94.21	51.7	13	27K	5							
SHIRAZ	94.65	299.3	13	23	-1						20	14
PRIEST	95.67	54.2	13	29A	0							
WOODY	97.12	54.7	13	40	4							
BLUE MTS.	98.17	45.5	13	42	2							
EUREKA	99.36	50.9	13	47	1							
COLLMBERG	118.73	328.1	18	56	5							
SAN JUAN	146.13	63.1	19	43	2							
CARACAS	147.33	77.3	19	49	6							
TRINIDAD	152.67	75.2	19	57	5							

SEPTEMBER 12 20.H 56.M 53.5 EPICENTRE 36.11 69.03 DEPTH= 0.KM

A= 0.28985 B= 0.75616 C= 0.58669 D= 0.9338 E=-0.3579
G= 0.2100 H= 0.5478 K=-0.8098 HT= -0.3

SE= 2.70

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
KULYAB	1.88	17.7	0	37	3								
KHOROG	2.43	54.9	0	47	6	1	18	6					
DUZHANBE	2.47	355.3	0	42	0						1	16	
OBI-GARM	2.64	11.5	0	47	3	1	17	-1					
WARSAK DAM	2.95	134.7	0	57	8								
DZERGETAL	3.57	28.7	1	1	3								
SAMARKAND	3.91	336.1	1	3K	1								
FERGANA	4.79	26.1	1	16A	1	2	7	-5			2	27	
TASHKENT	5.21	2.1	1	20K	-1						1	46	
NAMANGAN	5.29	22.3	1	23K	1						1	48	
ANDIJAN	5.33	28.5	1	24K	1	2	22	-4					
QUETTA	6.16	197.0	1	40	6	2	50	4			1	53	PP
LAHORE	6.33	134.3	1	42	5								
NARYN	7.61	43.6	1	55	0								

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FRUNSE	7.98	31.1	2	0A	0						2	20	*SP
ASHKABAD	8.74	285.3	2	6	-4								
FABRICHNAYA	9.04	36.9	2	14	0								
ALMATA	9.40	38.0	2	19K	-1						3	55	
DEHRA DUN	9.51	124.8	2	25	4	4	10	0			2	41	PPP
ALMATA-2	9.61	39.4	2	21K	-1								
PRZHEVALSK	9.65	45.9	2	23A	0	4	11	-2					
KURMENTY	9.92	43.2	2	25	-2								
NEW DELHI	10.20	135.1	2	32A	1	4	22	-5			2	39	PP
CHILIK	10.37	41.2	2	31	-2								
KIZYL-ARVAT	10.58	290.8	2	30	-6						2	59	
TEHERAN	14.30	273.7	3	20	-6	6	11	5					
SEHORE	14.66	149.4	3	33	3	6	12	-3			3	43	PP
SHIRAZ	15.28	249.8	3	42A	4	6	38	9			4	1	PPP
BOMBAY	17.46	168.0	4	10A	4	7	30	10			4	23	PP
MAKHACH-KALA	17.94	299.0	4	9	-3	7	26	-5			8	45	
CHATRA	18.01	115.8	4	9	-4	7	22	-10			4	18	PP
POONA	18.02	165.1	4	6A	-7	7	45	12			4	26	PP
GORIS	18.24	287.5	4	15K	-1	7	37	-1			4	41	PPP
KIROVOBAD	18.35	291.2	4	14K	-3	7	27	-13			7	43	SS
BOKARO	18.96	125.6	4	26A	1	7	48	-6			4	40	PP
GROZNY	19.27	299.1	4	27	-1	7	58	-3					
LHASA	19.56	103.0	4	35A	3	8	16	9					
TIFLIS	19.64	293.9	4	31K	-2	8	11	2			11	20	
HYDERABAD	20.39	153.4	4	45A	4	8	33	8			4	58	PP
SVERDLOVSK	21.49	347.3	4	49A	-3	8	38	-8					
SHILLONG	22.20	111.9	5	2A	3	8	58	-2			5	26	PP
VISHAKHAPTNM	22.25	141.6	5	5K	5	9	8	7			5	33	PP
ESEN BULAK	22.80	54.8	5	6A	1	9	12	1					
SOTCHI	23.62	297.4	5	14K	1						5	48	PP
TOCKLAI	23.81	105.8	5	18	3						5	43	
CHITTAGONG	24.07	118.5	5	20A	2	9	40	7	5	32	6	2	PP
MADRAS	25.10	153.6	5	32	4	10	10	20			6	7	PP
KODAIKANAL	26.88	161.4	5	48	4	10	39	19					
KSARA	27.19	275.0	5	49	2	10	31	6					
SIMFEROPOL	27.79	299.4	5	49K	-3	10	29	-6			11	31	SS
LANCHOW	28.04	79.7	5	56A	1	10	40	1			5	44	PP
JERUSALEM	28.29	271.1	5	59A	2	10	58	15					
MOSCOW	28.98	322.5	6	1	-2	10	45	-9			6	49	PPP
CHENGTU	29.61	90.4	6	10A	1	11	4	0					
IRKUTSK	29.65	45.9	6	9A	0	11	4	-1			7	26	PPP
ULAN-BATOR	30.22	55.1	6	16A	2	11	14	1					
KUNMING	30.87	101.3	6	21A	1	11	23	-1			7	23	PP
ISTANBUL UN.	31.49	291.3	6	24	-1								
KISHINEV	31.67	302.7	6	26K	-1	11	32	-4					
PAOTOW	32.26	69.4	6	33A	1	11	44	-1			7	47	PP
PORT BLAIR	32.40	132.7	6	37A	4	11	51	3			7	55	PP
SIAN	32.50	81.4	6	34A	0								
PULKOVO	34.33	325.9	6	48K	-2	12	10	-8			8	5	PP
LWOW	35.12	307.2	6	56K	-1	12	25	-5			8	10	PP
SOFIA	35.57	294.9	7	1	0	12	36	-1	7	34	8	31	PP
ATHENS	35.95	286.8	7	4K	0	12	42	-1			9	29	
UZHGOROD	36.17	305.1	7	4	-2								
TIMISOARA	36.90	300.2	7	15	3	12	55	-2			8	27	PP
HELSINKI	36.96	324.7	7	11	-1								
PEKING	36.98	69.3	7	13A	0	12	58	-1			8	39	PP
SKOPJE	37.04	293.9	7	17	4						12	57	
NURMIJARVI	37.22	325.1	7	13	-2	12	43	-19			8	31	PP
WARSAW	37.27	311.0	7	15K	0	12	56	-7	7	25	8	42	PP
APATITY	37.38	338.4	7	15K	-1	12	58	-7			15	21	SS
KAJAANI	37.41	331.5	7	15	-1						15	3	SS
BELGRADE	37.49	298.7	7	18A	1	13	9	3			9	4	PPP
SZEGED	37.64	301.1	7	18	0						10	46	SSS
KRAKOW	37.78	307.3	7	20	1	13	8	-3					
BUDAPEST	38.36	303.1	7	22	-2	13	12	-8			8	39	PP
TITOGRAD	38.59	295.0	7	27	1	13	19	-4			9	0	PP
HURBANOVO	38.90	303.8	7	34	5	13	30	2			8	44	PP
RACIBORZ	38.90	307.3	7	29	0	13	25	-3	7	45	9	19	PPP
SODANKYLA	39.43	335.7	7	31K	-2						8	46	
BRATISLAVA	39.63	304.3	7	35	0	13	31	-8			9	4	PP
VIENNA-H.	40.12	304.4	7	39	0	13	45	-1	8	2	9	13	PP
UMEA	40.32	329.0	7	40	0	13	41	-8			9	9	PP
CANTON	40.33	96.3	7	42A	1	13	48	-1					
TARANTO	40.39	292.4	7	39	-2						17	40	SS
UPPSALA	40.40	322.5	7	40K	-1	13	42	-8			9	7	PP
ZAGREB	40.55	300.7	7	44	2						9	52	
KEVO	40.59	339.0	7	41	-2	13	43	-10			9	15	PP
KARLSKRONA	40.87	316.6	7	42	-3								

NANKING	41.05	80.7	7	47A	1	13	58	-2			9	27 PP
PRUHONICE	41.25	307.2	7	49	1	13	58	-5			9	26 PP
PRAGUE	41.33	307.3	7	48	-1	14	2	-2			9	26 PP
HONG KONG	41.38	96.8	7	51A	-2	13	49	-16	8	9	9	24 PP
LJUBLJANA	41.54	301.2	7	50K	-1	14	7	0	8	1	9	34 PP
KIRUNA	41.75	334.7	7	51	-1	14	3	-7			9	25 PP
KASPERSKE H.	41.92	305.9	7	53	-1							
TRIESTE	42.12	300.7	7	55	0	14	12	-4	8	14	9	37 PP
MESSINA	42.18	289.5	7	57	1	14	17	0	8	6	9	34 PP
COLLMBERG	42.20	309.2	7	55K	-1	14	12	-5				
COPENHAGEN	42.60	315.7	7	59	0	14	19	-4				
CHEB	42.65	307.4	8	2	2	14	22	-2			9	44
HALLE	42.86	309.5	8	1	0	14	21	-6				
AQUILA	42.89	296.0	8	1	-1	14	21	-6	8	11	9	42 PP
GOTEBORG	42.99	318.6	7	59	-3						9	36 PP
TROMSOE	42.99	336.8	8	1	-1							
CHANGCHUN	43.10	61.8	8	3A	0	14	27	-3				
JENA	43.11	308.7	8	2	-1	14	25	-5	8	37	9	40 PP
NHATRANG	43.26	113.0	8	7	2							
ZO-SE	43.30	81.0	8	6A	1	14	31	-2			9	50 PP
PADOVA	43.47	300.6	8	11	5	14	37	2			10	29 PPP
ROME	43.65	295.5	8	7K	-1	14	37	-1	8	18	9	57 PP
SKALSTUGAN	43.67	327.2	8	7	-1						9	45 PP
FLORENCE X.	44.17	298.4	8	7	-5	14	37	-9	8	18	9	57 PP
KONGSBERG	44.38	321.3	8	13	-1	14	42	-7			9	58 PP
STUTTGART	44.78	305.8	8	17	0	14	47	-7				
CHUR	44.86	303.0	8	16	-2						18	9
TUBINGEN	44.94	305.5	8	17	-1							
EBINGEN	45.05	305.0	8	19	0							
HEIDELBERG	45.07	306.7	8	19	0							
FELDBERG	45.16	307.9	8	23	3							
YAKUTSK	45.23	35.4	8	20A	-1						14	49
PAVIA	45.38	300.8	8	26	4	14	52	-11			18	33 SS
CHIAVARI	45.44	299.6	8	37	15	15	7	3				
STRASBOURG	45.79	305.7	8	25	0	15	3	-6			10	14 PP
BENSBERG	45.89	309.0	8	26A	0				8	35	10	16 PP
WITTEVEEN	46.03	311.7	8	35	8							
TAIPEI	46.04	88.7	8	31	4	15	15	2				
BASLE	46.07	304.3	8	25	-2						18	11
NEUCHATEL	46.58	303.6	8	31	0							
HWALIEN	46.61	89.9	8	31	0						9	54
TAWU	46.79	92.3	8	35	2							
HENGCHUN	46.84	92.8	8	35	2							
MONACO	46.89	299.1	8	33	-1						13	57 PCS
DE BILT	47.00	310.8	8	47	12						15	27 SP
ISOLA	47.06	299.8	8	35	0	15	24	-3				
BESANCON	47.19	304.1	8	35	-1							
DOURBES	47.63	308.2	8	40	1	15	31	-4				
PARIS	49.21	306.8	8	48A	-4	15	52	-5			10	42 PP
CLERMONT-FD.	49.43	302.7	8	52	-1	16	0	0				
KEW	50.48	310.6	9	1	0	16	10	-5			19	38 SS
ABERDEEN	50.60	318.2	9	14	12	16	12	-5			10	59 PP
DURHAM	50.66	315.0	9	2	-1	16	7	-10	9	18	10	18 PCP
MANILA	50.98	100.8	9	7	2	16	27	5				
FOLINIERE	51.13	307.3	9	5	-1							
JERSEY	52.08	308.1									16	30
TORTOSA	52.63	297.3	9	18	0	16	39	-6				
ABUYAMA	53.20	70.4	9	20A	-2							
UGLEGORSK	53.32	51.6	9	22A	-1	16	50	-4				
LWIRO	53.49	233.4	9	24	0							
NORD	53.90	349.5	9	25	-2	16	57	-5				
ALICANTE	54.17	294.7	9	29	0	17	5	0			10	37 PCP
Y.-SAKHLINSK	54.31	54.0	9	29A	-1	17	4	-3				
MATUSIRO	54.58	67.5	9	32A	0	17	7	-4				
MAGADAN	55.67	37.6	9	39A	-1							
MIZUSAWA	55.78	63.5	9	39	-2	17	22	-5				
LEMBANG	56.00	131.7	9	39A	-3	17	22	-8				
TUKUBASAN	56.11	67.1	9	40	-3	17	20	-11			10	37 PCP
ALMERIA	56.19	293.7	9	42A	-2	17	28	-4	10	0	11	51 PP
TOLEDO	56.22	297.7	9	43A	-1	17	30	-3	9	53	12	3 PP
SCORESBY SD.	56.78	336.3	9	47	-1	17	40	0				
GRANADA	56.90	294.5	9	44A	-5	17	37	-5			11	40 PP
SIDA	57.05	328.1	9	50	0							
MALAGA	57.67	294.3	9	51A	-3	17	47	-5			11	59 PP
TANANARIVE	58.38	204.0	10	2A	3						11	14
REYKJAVIK	58.57	329.1	9	53A	-8							
BENI ABBES	58.74	286.3	10	1	-1	18	5	-1			18	46 SCS
SERRA PILAR	58.97	300.6	10	3K	0	18	8	-1			12	17 PP

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COIMBRA	59.21	299.5	10	4	-1	18	11	-1	10	14				
ALERT	59.27	353.4	10	3A	-2									
LISBON	60.31	298.2	10	9K	-4	18	21	-5	10	19				
PETROPAVLOVK	61.92	43.2	10	19A	-5									
BROKEN HILL	63.22	224.9	10	32A	0									
THULE	64.57	349.8	10	38	-3						12	49	PP	
BULAWAYO	67.76	221.2	11	0A	-1									
MOULD BAY	67.81	2.2	11	0A	-2	19	55	-4						
RESOLUTE	68.98	355.5	11	8K	-1									
GUAM	70.72	87.2	11	18	-2									
PONTA DELGDA	72.25	303.9	11	38	9	20	52	1						
BANDEIRA	73.08	236.6	11	33A	-1									
PIETERMZBURG	74.79	214.3	11	46K	2									
COLLEGE	75.30	15.4	11	45A	-2	21	19	-7						
DARWIN	75.59	117.2	11	47	-1									
WINDHOEK	76.25	228.5	11	52K	0									
KIMBERLEY	76.78	219.0	11	55A	0									
GRAHAMSTOWN	79.66	215.1	12	10A	-1									
PERTH	80.66	141.1	12	17	1						22	2		
MUNDARING	80.87	140.8	12	17A	0									
HERMANUS	84.14	219.4				22	58	-1			23	19		
RABAUL	86.92	97.4	12	47	-1						23	9		
HALIFAX	88.91	328.3	12	57A	0									
CHARTERS TS.	91.84	113.5	13	10A	-1						16	52		
BREBEUF	92.04	334.7	13	11	-1	24	5	-7			16	50	PP	
BANFF	93.00	2.9	13	15	-1									
PENTICTON	94.60	5.7	13	23A	-1									
VICTORIA	95.02	8.3	13	25	-1									
HUNGRY HORSE	95.88	2.0	13	28A	-2									
ADELAIDE	95.96	129.2	13	29K	-1						26	25	PS	
PALISADES	96.06	332.7	13	30	0	24	2	-5	13	44				
LONDON ONT.	96.68	338.5	13	32	-1									
CLEVELAND	98.21	338.1				24	10	-8			26	25	PS	
BUTTE	98.24	1.1	13	39A	-1						17	36	PKP	
BOZEMAN	98.60	0.1	13	41A	-1	24	16	-4			17	40	PKP	
BLUE MTS.	99.22	4.6	13	43	-2	24	18	-5			17	49	PP	
BERMUDA	99.25	321.7	13	37	-8	24	23	0						
BRISBANE	100.96	115.8									15	25		
BLOOMINGTON	101.75	340.8	13	54	-2									
TOOLANGI	101.86	127.9	13	56	-1						18	10	PP	
CANBERRA	102.85	124.3	14	0	-1						18	17	PP	
FLAMING GRGE	103.33	358.8	14	3A	0									
RIVERVIEW	103.46	122.0									28	13		
MANHATTEN	103.90	348.5				25	55	70						
MIRNY	103.98	170.4	18	17	251									
DUGWAY	104.05	1.5	14	7K	1									
ROLLA	104.28	344.5	14	6	-1									
GOLDEN	104.39	355.5	14	7	-1									
EUREKA	104.65	4.0	14	9A	0						29	54	PKKP	
CALISTOGA	104.86	9.4									17	23		
BERKELEY	105.66	9.3	14	15A	777	24	53	0			18	37	PP	
LICK	106.26	8.8									18	2		
TULSA	106.97	347.2	14	19	777	24	55	-4			18	45	PP	
WILKES	106.98	163.8				25	14	15			28	16	PS	
PRIEST	107.56	8.2									17	23		
WICHITA MTS.	108.60	349.3	14	26	777	25	35	29			18	50	PP	
ALBUQUERQUE	109.18	356.1	14	31	777						17	27	PKP	
PASADENA	109.78	6.3	14	25	777						18	55	PP	
LUBBOCK	110.15	351.9									28	32		
ST. CLAUDE	110.31	309.0				25	17	4			18	49	PP	
CARACAS	117.79	309.4				25	39	-3			20	2	PP	
KARAPIRO	122.76	115.6	18	57	-1						28	51	PKKP	
WELLINGTON	123.45	119.6									20	37	PP	
TUAI	124.26	116.0	18	32	-29									
FUQUENE	125.89	312.0	19	6	2						20	58	PP	
SOUTH POLE	125.92	180.0	19	4	0									
SCOTT BASE	126.61	164.8	19	2	-3									
BOGOTA	126.77	311.7									21	14	PP	
CAPE HALLETT	127.35	157.8	19	7	0									
CHINCHINA	127.41	313.5	19	7	0						28	2	SKKS	
BYRD STATION	135.84	177.9	19	20	-3						22	0	PP	
AREQUIPA	139.90	288.7	19	24	-6									
HUANCAYO	139.95	297.6	19	29	-1									
SANTA LUCIA	146.93	262.6	19	43	1									

SEPTEMBER 13 14.H 35.M 3.S EPICENTRE 11.83 -61.14 DEPTH= 75.KM

A= 0.47248 B=-0.85747 C= 0.20375 D=-0.8758 E=-0.4826
G= 0.0983 H=-0.1785 K=-0.9790 HT= 6.3

DEPTH OF FOCUS= 0.007R

SE= 2.91

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
GRENADA	0.61	290.6	0 16A	0				
TRINIDAD	1.20	192.0	0 17K	-5	0 29	-10		
ST. VINCENT	1.33	354.7	0 25A	1				
DOMINICA	3.45	355.9	0 55	2	1 39	6		
ST. CLAUDE	4.21	352.7	1 6	2				
CARACAS	5.83	257.4	1 26	0				3 35 SG
SAN JUAN	8.09	324.2	1 59	2	3 34	6		
GALERAZAMBA	13.89	267.1	3 16	1				
FUQUENE	13.95	244.1	3 14	-2				5 56 *SS
BOGOTA	14.66	241.8	3 31A	6	6 9	3		
CHINCHINA	15.85	245.7	3 39	-1	6 27	-6		7 41 *SS
HOPE	16.27	294.0						3 51
BERMUDA	20.71	351.5	4 36	0				
HUANCAYO	27.59	211.2	5 42	0				
CHAPEL HILL	28.93	328.9	5 55	1				
AREQUIPA	29.92	200.2	6 3	0				
BREBEUF	35.20	344.7	6 52	3				
BLOOMINGTON	35.34	324.9	6 51	1	12 27	9		
LONDON ONT.	35.62	334.4	6 54	1				
FLORISSANT	37.37	321.1	7 6	-1				
POLLA	37.80	318.7	7 10A	-1				
TULSA	39.39	313.3	7 24	0				
LAWRENCE	40.58	317.8	7 33	-1				
WICHITA MTS.	40.90	310.1	7 35	-2			7 56	9 35 PCP
MANHATTEN	41.58	317.2	7 42	0				
ALBUQUERQUE	47.02	307.0	8 25	-1			8 44	9 7 *SP
GOLDEN	47.86	313.5	8 32	0				
LARAMIE	48.65	315.4	8 13	-26				
TUCSON TELE.	49.77	302.4	8 47	0				
FLAMING GRGE	51.17	313.5	8 46	-12			8 59	
PRICE	51.76	311.4	9 2	0				
SALT LAKE C.	52.88	312.5	9 28	17				
DUGWAY	53.41	311.6	9 13K	-2				
BOULDER CITY	53.88	306.0	9 17	-1				
BOZEMAN	54.03	318.5	9 19	0				
BUTTE	55.14	318.4	9 27	0			9 43	
EUREKA	55.56	309.9	9 28	-2				
MALAGA	56.45	53.7	9 35	-2				
HUNGRY HORSE	56.92	320.6	9 39	-1				
TOLEDO	57.36	50.1	9 42K	-1				
BENI ABBES	57.38	61.8	9 41	-2				
BLUE MTS.	57.93	315.8	9 45	-2				10 5
ALMERIA	58.00	53.9	9 46A	-1				
PRIEST	58.56	305.2	10 0A	9				
LICK	59.51	306.4	9 57K	-1				
MINERAL	59.98	309.8	10 1	0				
LONGMIRE	61.46	317.0	10 11	0				10 50
FOLINIERE	61.96	40.8	10 13	-2				
CLERMONT-FD.	63.70	44.7	10 26	0				
PARIS	63.88	41.3	10 27	0				
GARCHY	63.95	43.0	10 26	-2				
STUTTGART	68.30	42.1	10 53	-2				
JENA	70.02	40.0	11 5	-1				11 27
HALLE	70.31	39.4	11 7	-1				
ALERT	70.67	359.8	11 10	0				
COLLMBERG	70.94	39.7	11 10K	-1				11 34 PCP
KASPERSKE H.	71.15	42.0	11 11K	-2				
MOULD BAY	71.25	347.6	11 14	1				
LJUBLJANA	71.64	45.3	11 15K	-1				
PRAGUE	71.76	41.1	11 16	0				
PRUHONICE	71.83	41.2	11 16K	-1				11 36
SKALSTUGAN	72.11	26.8	11 19	1				
TROMSOE	75.53	20.9	11 39	1				
KIRUNA	75.94	22.8	11 41	0				
NURMIJARVI	77.73	30.3	11 50A	-1				
HELSINKI	77.90	30.7	11 52A	0				
COLLEGE	77.97	334.2	11 52	0				
SODANKYLA	78.31	23.3	11 53	-1				
ATHENS	78.81	53.4	11 56	-1				

KAJAANI	78.95	26.6	11 57	0							
WINDHOEK	83.88	114.5	12 34	11							
KIMBERLEY	92.09	118.8	13 12	10							
MATUSIRO	128.54	340.0	19 0	1						21 32	PP
CANBERRA	144.06	224.4	19 28	1							
BRISBANE	144.64	239.0	19 28	0						20 5	
TOOLANGI	144.99	218.4	19 29K	0			19 50				
RABAUL	146.18	280.2	19 33A	2							
ADELAIDE	150.74	214.8	19 45	7							
CHARTERS TS.	152.44	249.2	19 50K	9							

SEPTEMBER 14 18.H 17.M 51.S EPICENTRE -19.83-177.62 DEPTH= 333.KM

A=-0.94062 B=-0.03905 C=-0.33721 D=-0.0415 E= 0.9991
G= 0.3369 H= 0.0140 K=-0.9414 HT= 4.7

DEPTH OF FOCUS= 0.047R

SE= 1.08

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
APIA	8.20	43.9	1	55	-2	3	25	-4					
PORT VILA	13.48	276.6	3	3	3	5	32	8					
NOUMEA	15.07	257.8	3	20A	2	6	4	7					
KOUMAC	17.01	264.4	3	39A	0	6	45	10					
ONERAHI	17.37	202.3	3	45	2								
KARAPIRO	18.99	196.8	3	59	0						5	0	
TUAI	19.44	192.4	4	3	0	7	21	1			7	50	
CHATEAU	20.19	195.6	4	9	-2	7	41	8			11	9	SCP
TARATA	20.49	198.0	4	16	2						5	16	
WELLINGTON	22.34	195.2	4	31K	0	8	11	1					
HONIARA	24.01	292.3	4	48	1								
KAIMATA	24.44	199.9	4	52	1								
GEBBIES PASS	25.16	196.8	4	58	1								
BRISBANE	28.10	248.8	5	23	-1	9	39	-4					
RIVERVIEW	31.02	236.9	5	49A	0	10	29	0			15	43	SCS
CANBERRA	33.18	235.3	6	8A	0	11	2	0			11	52	SCP
RABAUL	33.28	293.9									15	48	
CHARTERS TS.	33.91	263.3	6	14A	0	11	10	-4					
TOOLANGI	36.58	233.2	6	36A	0				7	53	12	3	SCP
SAVANNAH	36.91	225.9	6	39	0								
MOORLANDS	37.22	224.8	6	41	-1								
TARRALEAH	37.65	225.4	6	45	0								
MACQUARIE I.	38.94	201.7	6	56K	0								
ADELAIDE	41.26	239.3	7	14A	-1						8	32	
HAWAII V.OB.	44.75	30.7	7	43	0								
HONOLULU	45.12	26.1	7	47	2						9	40	PCP
GUAM	49.66	308.8	8	20	0								
DARWIN	49.92	270.3	8	22	0						14	53	
DUMONT	54.10	199.3	8	51	-2								
SCOTT BASE	58.56	183.8	9	23	-1						10	47	
MUNDARING	59.93	243.9	9	32A	-1								
BYRD STATION	65.24	170.6	10	8	0						11	28	
MATUSIRO	69.88	323.3	10	36	-1	19	16	-2					
SOUTH POLE	70.29	180.0	10	39	0								
LEMBANG	73.40	268.6	10	58	0						12	26	
BERKELEY	77.44	41.8	11	21K	1								
PRIEST	77.44	44.0	11	21K	1								
LICK	77.52	42.6	11	21K	0								
ZO-SE	77.54	309.7				20	42	-1					
UKIAH	77.63	40.4	11	22	1				12	46			
CALISTOGA	77.72	41.1	11	22K	0								
PASADENA	77.97	46.9	11	23	0								
MINERAL	79.36	40.2	11	30K	0						12	55	
NANKING	79.79	309.4	11	33	0	21	6	0					
RENO	79.98	41.6	11	34K	0								
BOULDER CITY	81.26	46.9	11	41	1				13	6			
CHANGCHUN	82.09	322.2	11	45K	0	21	32	2			24	5	*SS
TUCSON	82.23	51.8	11	47	2								
MAWSON	82.31	199.7	11	43A	-3				13	9			
TUCSON TELE.	82.35	51.8	11	48	2				13	13			
EUREKA	82.39	43.4	11	46	0								
LONGMIRE	83.17	35.0	11	49K	-1						13	15	
VICTORIA	83.44	32.9	11	51K	0								
GLEN CANYON	84.01	47.4	12	9	15								
BLUE MTS.	84.57	38.4	11	57K	0				13	23	15	17	PP

DUGWAY	84.83	44.1	11	58K	0							
PEKING	85.66	315.2	12	4K	2	22	7	2			21	51 SKS
SALT LAKE C.	85.75	44.0	12	4	1				13	30		
PRICE	85.86	45.4	12	4K	1							
PENTICTON	85.90	33.8	12	4K	0							
ALBUQUERQUE	86.71	51.1	12	8	1				13	35		
FLAMING GRGE	87.45	44.8	12	11	0							
COLLEGE	87.48	12.3	12	9	-2				13	36		
BUTTE	88.00	39.2	12	14	0				13	40	15	45 PP
SIAN	88.10	307.4	12	16	2	22	33	6				
HUNGRY HORSE	88.39	36.7	12	14	-1							
BOZEMAN	88.74	40.1	12	17	0				13	44	15	52 PP
BANFF	89.11	33.8	12	18K	-1							
KUNMING	89.36	296.9				22	42	3				
PAOTOW	90.06	313.5				22	50	5				
LARAMIE	90.18	45.8	12	24	0							
CHENGTU	90.43	302.4				22	52	5				
WICHITA MTS.	92.50	54.0	12	34	-1	23	13	7	14	1	16	15 PP
LANCHOW	92.64	307.3	12	36	1	23	14	6				
MANHATTEN	95.65	50.5	12	51	2							
DUBUQUE	100.95	48.8	13	10	-3							
PALISADES	112.91	53.0	18	58	61				20	36		
QUETTA	121.24	293.8	18	15	2							
KIMBERLEY	127.08	204.8									20	16
SODANKYLA	130.02	348.0									21	17 SKP
KIRUNA	130.67	351.1	18	32	1							
KAJAANI	132.60	345.2									21	27 SKP
SHIRAZ	133.72	292.4	18	40	3						22	40 *SP
UMEA	134.40	349.0	18	24	-14							
SKALSTUGAN	135.76	353.7	18	34	-7							
NURMIJARVI	136.39	344.2									21	39 SKP
UPPSALA	138.55	348.4	18	39	-7							
GOTEBORG	141.53	351.7	18	44	-8							
BANDEIRA	143.85	198.1	18	54A	-2						22	11 PP
WARSAW	144.54	340.2	18	54	-3							
DURHAM	144.99	4.0	18	57	-1							
LWIRO	146.03	232.7	19	3A	3							
KRAKOW	146.77	339.2	19	3	2							
WITTEVEEN	146.90	355.2	19	4	3				20	35		
KSARA	147.18	302.0	19	5	4							
RACIBORZ	147.29	341.0	19	5	4						19	15 PKP2
COLLMBERG	147.50	347.6	19	5	3							
HALLE	147.51	348.8	19	6	4				20	39		
JENA	148.12	349.0	19	3	0				20	37	22	32 PP
JERUSALEM	148.25	298.6	19	9	6				20	40		
PRAGUE	148.34	345.1	19	9	6				20	41		
KEW	148.35	3.2	19	7	4				20	42		
PRUHONICE	148.39	344.9	19	8	5				20	39		
KASPERSKE H.	149.41	345.5	19	4	0				20	41		
VIENNA-H.	149.47	341.4	19	11	6							
DOURBES	149.75	357.2	19	11	6							
STUTTGART	150.60	350.7	19	6	0				20	51		
BELGRADE	150.91	333.0	19	13K	6							
STRASBOURG	150.99	352.6	19	15K	8							
FOLINIERE	151.04	3.9	19	13	6							
PARIS	151.09	359.8	19	15	8							
LJUBLJANA	152.00	341.8	19	15	7							
BESANCON	152.49	354.7	19	29	20							
GARCHY	152.61	359.0	19	17	8				20	54	22	59 PP
AQUILA	155.69	339.9	19	43	30							
BAGNERES	156.75	4.1	19	43	28							
TOLEDO	159.27	14.1	19	17	-1						23	39 PP

SEPTEMBER 15 22.H 50.M 43.S EPICENTRE 48.48 157.11 DEPTH= 3.KM

A=-0.61304 B= 0.25878 C= 0.74647 D= 0.3889 E= 0.9213
G=-0.6877 H= 0.2903 K=-0.6654 HT= -4.8

SE= 2.72

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PETROPAVLOVK	4.65	11.5	1	12	-1	2	3	-6				
KLYUCHI	8.18	14.9	2	1	-2						3	45
NEMURO	9.54	241.7	2	17	-5						4	52
Y.-SAKHLINSK	9.81	266.8	2	26	1	4	15	-2				
ABASHIRI	9.94	248.1	2	25	-2							

UGLEGORSK	9.95	279.1	2	27A	0	4	21	0			
OKHA	10.27	304.9	2	31	-1	4	32	3			
KUSIRO	10.45	243.0	2	4	-30	4	18	-15			
WAKKANAI	10.99	259.6	2	43K	1						
OBIHIRO	11.20	245.4	2	42	-2						
ASAHIGAWA	11.26	250.8	2	44K	-1					3	51
HIROO	11.50	242.5	2	39	-10	4	42	-17			
RUMOF	11.65	252.9	2	51	0						
URAKAWA	11.90	243.2	2	53	-1					4	49
SAPPORO	12.26	249.7	2	55	-4	5	48	31			
TOMAKOMAI	12.35	247.5	3	7	7						
MURORAN	12.89	247.5	3	10	3						
SUTTSU	13.10	250.6	3	10	0						
MORI	13.27	247.4	3	12	0						
HAKODATE	13.32	246.0	3	7	-6	5	28	-15			
HATINOHE	13.65	240.2	3	12	-5	6	0	9			
AOMORI	13.90	242.7	3	25	4						
MIYAKO	13.99	236.5	3	18	-4						
MORIOKA	14.41	238.4	3	24	-3	5	49	-20			
MIZUSAWA	14.82	236.8	3	35	2	6	21	2			
AKITA	15.01	240.6	3	46	11	6	40	17			
ISINOMAKI	15.22	234.5	3	30	-8	6	10	-18			
SENDAI	15.56	235.0	3	39	-3	6	18	-18			
SAKATA	15.71	238.9	3	51	7						
YAMAGATA	15.88	236.1	3	41	-5	6	49	6			
HUKUSIMA	16.17	234.6	3	51	1	7	1	11			
ONAHAMA	16.53	231.8	3	52	-3					8	3
SHIRAKAWA	16.77	233.6	3	58	0	6	51	-13			
NIIGATA	16.83	237.9	3	38	-21						
MITO	17.19	231.4	4	6A	3	7	26	12			
AIKAWA	17.22	239.6	4	5	2						
UTUNOMIYA	17.38	233.1	4	4	-1						
KAKIOKA	17.46	231.7	4	5	-1	7	27	7			
TUKUBASAN	17.51	231.9	4	1K	-6	6	57	-24		4	23 PPP
TAKADA	17.86	237.4	3	43	-29						
MAEBASI	17.92	234.3	4	9K	-3	7	28	-2			
KUMAGAYA	17.94	233.2	4	14K	2	7	44	13			
TOKYO C.M.O.	18.10	231.4	4	7	-7	7	47	13			
NAGANO	18.20	236.6	4	19A	3	7	38	1			
TITIBU	18.23	233.4	4	17	1						
OIWAKE	18.25	235.2	4	18	2	7	41	3			
MATUSIRO	18.29	236.3	4	12A	-5	7	44	5			
VLADIVOSTOK	18.34	262.5	4	16K	-1	7	37	-3			
YOKOHAMA	18.35	231.1	4	17	0						
WAZIMA	18.44	240.5	4	27	8	7	45	3			
MATUMOTO	18.63	236.1	4	23	2	7	54	8			
MERA	18.65	229.8	4	23	2						
KOHU	18.74	233.8	4	23	1	7	54	5			
TOYAMA	18.74	238.4	4	21	-1	8	6	17			
HUNATU	18.75	233.0	4	26	4	7	36	-13			
AJIRO	18.92	231.5	4	23	-2						
MISIMA	18.95	231.9	4	24	-1	8	2	8			
OSIMA	19.00	230.4	4	25	0	8	1	6			
TAKAYAMA	19.10	237.2	4	27	0						
KANAZAWA	19.17	239.0	4	28	1						
IIDA	19.25	234.8	4	29	1	9	2	62			
SHIZUOKA	19.35	232.7	4	30	0	8	15	12			
OMAESAKI	19.73	232.3	4	41	7						
HUKUI	19.75	238.7	4	32	-2					4	58
HAMAMATU	19.91	233.5	4	35	-1						
GIHU	19.92	236.5	4	36	0						
NAGOYA	19.98	235.7	4	34K	-3	8	17	1			
TSURUGA	20.13	238.2	4	37	-1						
HIKONE	20.30	237.1	4	39	-1	8	30	7			
YAKUTSK	20.47	321.6	4	38A	-4	8	22	-4			
KAMEYAMA	20.49	235.9	4	40K	-2	8	28	1			
KYOTO	20.77	237.5	4	44	-1						
TOYOOKA	20.93	240.0	4	46	-1	7	33	-63			
NARA	20.97	236.7	4	47	0						
ABUYAMA	20.97	237.5	4	44K	-3	8	36	-1			
OSAKA	21.16	237.2	4	50	1	8	46	6			
OWASE	21.22	235.0	5	11	21	8	43	2			
KOBE	21.33	237.8	4	51	0	8	49	6			
SAIGO	21.34	243.7	4	53	2	8	54	11			
SUMOTO	21.73	237.6	4	55	0	8	43	-8			
SIOMISAKI	21.92	234.6	4	58	1	8	58	4			
MATSUE	22.00	242.6	4	58	0						
TORISIMA	22.08	221.6	5	7	9						
TAKAMATU	22.23	239.0	4	59	-1	9	3	3			

CHANGCHUN	22.42	270.0	4	56K	-6	8	56	-8											
MUROTO	22.94	236.9	5	6	-1														
HAMADA	22.98	243.1	5	8	1	9	15	1											
KOTI	23.09	238.4	5	8K	0	9	19	3											
HIROSIMA	23.13	241.6	5	8	-1	9	12	-4											
UWAZIMA	23.88	239.4	5	18	2														
ASHIZURI	24.00	237.9	5	17	0	9	38	6											
SIMONOSEKI	24.31	243.0	5	21	1														
OOITA	24.42	240.8	5	22	1	9	21	-18											
HUKUOKA	24.90	243.1	5	26	0	9	50	3								16	26		
SAGA	25.18	242.7	5	23	-5														
KUMAMOTO	25.25	241.4	5	29	0	10	1	8											
MIYAZAKI	25.49	239.0	5	33	2	10	7	10											
NAGASAKI	25.79	242.4	5	34K	0	10	3	1											
KAGOSIMA	26.24	239.7	5	40	2	10	22	13											
HUKUE	26.44	243.8	5	35	-5	10	20	7											
YAKUSIMA	27.11	238.1	5	46	0											10	51		
PEKING	30.21	269.2	6	12K	-2	11	6	-7	6	26						7	17	PP	
ZO-SE	32.24	250.7	6	30K	-2	11	41	-4											
ULAN-BATOR	32.99	288.3	6	36	-3	11	54	-3											
COLLEGE	33.10	39.9	6	39	-1	12	1	3											
NANKING	33.12	254.5	6	37K	-3	11	52	-7	6	59									
IRKUTSK	33.26	296.8	6	39A	-2	11	56	-5											
PAOTOW	34.02	274.5	6	45	-3	12	7	-6											
GUAM	36.39	200.6	7	1	-7											8	58	PCP	
SIAN	38.22	266.3	7	21K	-2	13	14	-3											
ESEN BULAK	40.27	290.7	7	39	-1	13	30	-18											
LANCHOW	40.56	272.5	7	41K	-2	13	46	-6											
MOULD BAY	42.04	20.8	7	55	0	14	23	8											
CANTON	42.82	249.6	8	0K	-1	14	22	-4											
HONG KONG	42.88	248.0	8	0	-2	14	28	1								17	59		
CHENGTU	43.70	266.0	8	7K	-1	14	35	-4											
KIPAPA	44.73	110.9	8	18	1														
HONOLULU	44.77	111.1	8	19	2	15	0	6								10	9	PP	
MANILA	44.88	233.8	8	17	-1											18	20		
ALERT	47.75	6.5	8	39	-2														
HAWAII V.OB.	47.92	110.1	8	43	1	15	47	8											
KUNMING	48.20	261.3	8	43K	-1	15	39	-4								10	36	PP	
RESOLUTE	48.32	19.8	8	45K	0														
NORD	50.13	358.8	8	58K	-1	16	7	-3											
VICTORIA	50.32	58.1	9	0	0														
PENTICTON	52.01	55.5	9	12K	-1														
THULE	52.05	12.3	9	10	-4											10	21	PCP	
RABAUL	52.64	186.2	9	15	-3											16	45		
LHASA	52.97	274.6	9	20	0														
RANFF	53.18	51.8	9	19	-3														
ALMATA	53.64	296.7	9	21	-4	16	52	-6											
SVERDLOVSK	54.39	317.8	9	30	-1	17	5	-3											
SHILLONG	55.10	270.2	9	32K	-4	17	13	-5								11	39	PP	
FRUNSE	55.28	297.5	9	35	-2	17	12	-8											
HUNGRY HORSE	55.60	53.9	9	40	0														
UKIAH	55.80	67.7	9	41	0														
BLUE MTS.	55.86	59.0	9	40	-2											39	8	PKPPKP	
MINERAL	56.05	65.6	9	41K	-2														
CALISTOGA	56.50	67.8	9	45K	-1														
APATITY	56.81	337.5	9	37A	-11	17	32	-8								10	1		
BERKELEY	57.17	68.3	9	49K	-2	17	45	0								21	35	SS	
CHITTAGONG	57.33	267.5	9	51	-1	17	44	-3	10	5						12	1	PP	
RENO	57.63	65.3	9	54K	0														
HONIARA	57.71	176.7	9	53K	-2	17	7	-45											
BUTTE	57.80	55.4	9	54	-1	18	0	6								12	18	PP	
LICK	57.89	68.4	9	55K	-1											10	48		
TROMSOE	58.29	344.1	9	57	-2														
SODANKYLA	58.59	339.8	9	58	-3											12	0	PP	
BOZEMAN	58.85	55.0	10	1	-2	18	9	2								11	45	PP	
PRIEST	59.26	68.9	10	5K	-1														
TASHKENT	59.34	299.0	10	7K	1	18	15	1								21	59	SS	
CALCUTTA	59.51	270.2	10	7	0	18	14	-2											
KIRUNA	59.55	342.4	10	6	-1	18	13	-3	10	20									
EUREKA	59.97	63.2	10	9	-1											39	9	PKPPKP	
BOKARO	60.32	273.2	10	10K	-3	18	28	2								18	51	PPS	
KHOROG	60.46	294.3	10	12	-2	18	26	-2											
KAJAANI	61.00	337.2	10	16	-1											39	36	PKPPKP	
SCORESBY SD.	61.35	359.6	10	19	-1	18	42	2											
DUGWAY	61.36	60.8	10	19K	-1	18	38	-2											
SALT LAKE C.	61.55	59.7	10	21	0														
PASADENA	62.10	69.1	10	24	-1	18	50	1	10	41									
LAHORE	62.61	287.5	10	25	-3	18	54	-1											

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

WARSAK DAM	62.73	291.3	10	28K	-1	18	50	-7				
NEW DELHI	62.76	283.1	10	25K	-4	18	45	-12			19	7 PS
PRICE	62.91	60.1	10	29	-1							
BOULDER CITY	62.94	65.5	10	30	0						11	8 PP
UME,	63.03	340.1	10	28A	-3	18	52	-9	10	43	12	56 PP
PULKOVO	63.76	333.1	10	34K	-2	19	2	-8			13	4 PP
RAPID CITY	64.10	52.2	11	35	57						40	27 PKPPKP
GLEN CANYON	64.22	62.8	10	38	-1							
PORT BLAIR	64.42	258.3	10	36	-4	19	22	4				
MOSCOW	64.51	326.9	10	38A	-3	19	14	-5			12	58 PP
NURMIJARVI	64.76	336.2	10	40	-2	19	19	-3			20	35 SCS
SKALSTUGAN	64.90	343.5	10	41	-2							
HELSINKI	64.96	335.8	10	41	-3							
VISHAKHAPTNM	66.26	270.2	10	52A	0	19	42	1				
UPPSALA	67.11	339.1	10	55A	-2	19	45	-6	11	11	39	7 PKPPKP
REYKJAVIK	67.73	359.5	11	5K	4				11	19		
TUCSON	67.90	66.1	11	1	-1							
TUCSON TELE.	67.91	65.9	11	2	0						13	31 PP
SIDA	68.02	357.7	11	6K	3							
QUETTA	68.18	291.1	11	2K	-2	19	58	-6	11	11	13	25 PP
ALBUQUERQUE	68.62	61.2	11	6	-1						39	16 PKPPKP
CHARTERS TS.	68.94	190.9	11	6	-3							
KOUMAC	69.02	172.8	11	7A	-2							
BERGEN	69.10	345.5	11	11	1							
HYDERABAD	69.69	273.5	11	12	-1	20	19	-3			24	13 SS
LEMBANG	70.06	233.4	11	14A	-2							
GOTEBORG	70.33	341.0	11	16	-1				11	31		
SCHEFFERVLLE	70.66	25.2	11	17	-2							
KARLSKRONA	70.90	338.4	11	19	-2							
NOUMEA	70.95	170.9	11	22A	1							
MANHATTEN	71.05	52.0	11	19	-3	20	32	-6				
DUBUQUE	71.54	46.2	11	23	-2	20	39	-4				
MADRAS	71.73	269.0	11	17	-9	20	43	-2			13	59 PP
KARACHI	71.88	287.1	11	23	-4							
POONA	71.95	277.7	11	26K	-1	20	47	-1			11	45 PCP
COPENHAGEN	72.08	339.9	11	26	-2	20	48	-1				
TIFLIS	72.20	313.3	11	28K	-1	20	50	-1			15	54 PPP
LUBBOCK	72.27	59.3	11	28	-1							
BOMBAY	72.36	278.7	11	27	-3	20	51	-2			11	46 PCP
WARSAW	72.92	333.5	11	33	0	20	55	-4			11	51 PCP
GORIS	73.13	310.9	11	34K	0	21	5	4			14	17 PP
WICHITA MTS.	73.27	56.5	11	33	-2	21	1	-2			14	17 PP
TEHERAN	73.30	305.2	11	35	0	21	6	3				
ABERDEEN	73.31	348.4	11	41A	6	21	2	-1			21	43 PS
TULSA	73.91	53.9	11	37	-2	21	5	-5			16	9 PPP
LWOW	74.08	330.5	11	38K	-2	21	14	2			14	25 PP
SIMFEROPOL	74.44	321.8	11	40K	-2	21	13	-3			14	23 PP
ROLLA	74.45	50.1	11	39K	-3	21	12	-4	11	46		
FLORISSANT	74.53	48.5	11	39	-3	21	7	-10				
FAYETTEVILLE	74.63	52.7	11	36	-7							
ST. LOUIS 1	74.72	48.5	11	42	-1	21	16	-3				
KISHINEV	74.79	326.2	11	42K	-2	21	16	-4				
KRAKOW	75.17	333.0	11	25	-21	21	23	-1				
LONDON ONT.	75.45	40.1	11	46A	-1							
DURHAM	75.57	347.4	11	52A	4						12	6 PCP
BRISBANE	75.62	184.0	11	47	-1	21	30	1				
RACIBORZ	75.65	334.1	11	49	0						14	32 PP
DALLAS	75.66	56.6	11	47	-2							
SKALNATE PL.	75.84	332.4	11	50	0	21	30	-1			14	41 PP
COLLMBERG	75.96	337.7	11	49K	-1	21	30	-3				
WITTEVEEN	76.00	342.0	11	52	1							
HALLE	76.04	338.4	11	50	-1	21	31	-3				
BLOOMINGTON	76.12	45.8	11	50	-1	21	31	-3				
BREBEUF	76.44	34.1	11	51A	-2	21	26	-12			14	45 PP
CLEVELAND	76.56	41.3	11	52K	-2	21	37	-2				
JENA	76.66	338.4	11	52	-2	21	35	-5			15	10 PP
PRUHONICE	76.76	336.2	11	54	-1	21	36	-6			14	44 PP
DE BILT	76.98	342.7	11	57	1	21	47	3			26	47 SS
SHIRAZ	77.21	300.2	11	56K	-1	21	40	-6			16	40 PPP
CHEB	77.24	337.6	11	59	1	21	46	-1			22	40 PS
HURBANOVO	77.63	333.1	12	2	2	21	58	7			14	40 PP
BENSBERG	77.64	341.1	11	59K	-1	21	52	1			22	27
BRATISLAVA	77.69	333.9	12	0K	0	21	54	2			14	53 PP
KASPERSKE H.	77.80	336.5	11	59	-2						14	51 PP
VIENNA-H.	77.83	334.4	12	1K	0	21	53	0			14	57 PP
TIMISOARA	78.56	330.2	12	2	-3	21	57	-4				
KEW	78.58	345.8	12	4	-1	22	0	-1			14	53 PP
HEIDELBERG	78.76	339.6	12	5	-1							

DOURBES	78.99	342.4	12	7	0	22	5	-1					
STUTTGART	79.22	339.0	12	9	1	22	2	-6			22	46	PS
TUBINGEN	79.49	339.0	12	9	-1						12	28	
BELGRADE	79.63	330.2	12	11A	0	22	8	-4			18	40	
STRASBOURG	79.75	339.9	12	11	0	22	14	1			15	17	PP
ISTANBUL UN.	79.78	322.8	13	12K	61								
EBINGEN	79.84	339.0	12	11	-1						12	31	
WESTON	79.97	34.3	12	10	-2								
ZAGREB	80.14	333.6	12	17	4	22	17	-1					
PALISADES	80.14	36.7	12	12K	-1	22	14	-4	12	34	22	32	*SS
FORDHAM	80.29	36.7	12	12	-2	22	14	-5					
LJUBLJANA	80.36	334.6	12	14	-1						15	17	PP
SOFIA	80.51	327.3	12	15	0	22	20	-1			15	18	PP
GEORGETOWN	80.62	39.9	12	14	-2	22	20	-3					
WASHINGTON	80.62	39.9	12	9	-7								
PARIS	80.64	343.3	12	17	1	22	21	-2			15	23	PP
HALIFAX	80.66	28.2	12	15K	-1								
BASLE	80.78	339.6	12	20K	3	22	28	4					
TRIESTE	80.94	334.9	12	17	-1	22	23	-3					
CHUR	80.95	338.1	12	17	-1	22	25	-1					
FOLINIERE	81.21	345.2	12	18	-1								
BESANCON	81.41	340.6	12	19	-1						13	2	
NEUCHATEL	81.42	339.9	12	24	4	22	32	1					
PADOVA	81.68	336.1	12	24	3	22	43	9	12	41	23	28	PS
SKOPJE	81.82	328.2	12	23	1	22	45	10			12	44	
GARCHY	81.99	342.5	12	23K	0	23	39	62			13	29	
RIVERVIEW	82.11	185.0	12	24A	0						22	49	SCS
TITOGRAD	82.15	329.9	12	26	2	22	35	-3			23	21	PS
PAVIA	82.60	337.8	12	28K	2	22	43	0	13	4	28	24	SS
KSARA	82.75	314.1	12	26	-1	22	46	2			15	33	PP
FLORENCE x.	83.36	335.8	12	36K	6	23	7	16	12	55	15	47	PP
CLERMONT-FD.	83.42	342.0	12	31A	1	22	58	7					
CANBERRA	83.74	186.7	12	32	0								
ISOLA	84.06	338.8	12	34	0	22	58	0					
AQUILA	84.07	333.8	12	33	-1	22	53	-5	12	56	15	45	PP
MONACO	84.39	338.4	12	35	0	23	4	3					
ATHENS	84.49	324.8	12	33K	-3	22	55	-7			12	54	
TARANTO	84.58	330.4	12	33	-3	23	7	4					
ADELAIDE	84.68	195.1	12	37	0	22	58	-6			24	1	PS
JERUSALEM	84.73	313.4	12	36K	-1	23	12	8					
ROME	84.75	334.3	12	36K	-1	23	7	3	12	55	15	53	PP
TOOLANGI	86.29	189.2	12	44	-1								
BAGNERES	86.61	343.3	12	47	1	23	17	-5			16	6	PP
KARAPIRO	87.58	165.5	12	51	0								
MUNDARING	88.04	213.8	12	52A	-1								
TARATA	88.62	166.7	12	55	-1								
TUAI	88.70	164.5	12	55	-1								
TORTOSA	88.71	342.5	12	56	-1	23	22	-20					
CHATEAU	88.82	165.8	12	54	-3								
SERRA PILAR	89.89	349.3	13	1A	-1	23	48	-5	13	11	16	35	PP
TOLEDO	90.45	345.6	13	3K	-2	23	38	-20			16	42	PP
WELLINGTON	90.73	166.8	13	3	-3	23	59	-2			16	37	PP
COIMBRA	90.78	349.0	13	5	-1						16	41	PP
ALICANTE	91.29	342.6	13	8	-1	23	43	-23					
GRANADA	93.01	344.7	13	18K	2	24	34	13			16	51	PP
ALMERIA	93.12	343.7	13	14A	-3						17	7	PP
MALAGA	93.59	345.2	13	18	-1	24	29	3			17	5	PP
PONTA DELGDA	94.14	2.2	13	20	-2	24	37	7			25	45	PS
ROXBURGH	94.18	171.4				24	41	10			25	55	PS
SAN JUAN	103.09	41.9	14	1	-1								
ST. CLAUDE	107.08	39.1				25	0	1			18	53	PP
FORT FRANCE	108.48	39.2									18	56	PP
CHINCHINA	109.71	57.4									19	3	PP
FUQUENE	110.34	55.4									19	9	PP
BOGOTA	110.86	56.2									19	15	PP
TRINIDAD	112.01	41.3									19	23	PP
DUMONT	115.56	187.5	18	41	-3						19	32	
LWIRO	116.19	299.1	18	47A	2						19	53	
WILKES	119.90	199.8	18	51	-1						36	53	SS
CAPE HALLETT	120.84	175.4	18	53	-1								
MIRNY	124.60	205.9	18	59	-3								
BROKEN HILL	125.99	290.7	19	5	1						20	59	
SCOTT BASE	126.20	177.5	19	5	0								
BULAWAYO	130.15	285.9	19	12	0						21	23	
LUANDA	130.19	310.3	19	16A	4						21	27	PP
MAWSON	135.10	212.8	19	8	-13				19	18	21	56	PP
BANDEIRA	135.23	305.8	19	10K	-12						22	2	PP
ANTOFAGASTA	135.25	73.8	19	22	0								
BYRD STATION	136.19	165.5	19	10	-13						23	40	PP

SOUTH POLE	138.29	180.0	19	16	-11								
SANTA LUCIA	141.58	85.0	19	36	3							23	9
HERMANUS	145.90	278.6	19	45	4								

SEPTEMBER 16 3.H 5.M 38.5 EPICENTRE 19.51-103.13 DEPTH= 140.KM

A=-0.21422 B=-0.91865 C= 0.33195 D=-0.9739 E= 0.2271
G=-0.0754 H=-0.3233 K=-0.9433 HT= 4.8

DEPTH OF FOCUS= 0.017R

SE= 2.32

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
GUADALAJARA	1.18	351.2	0	18	-8	0	40	-6					
TACUBAYA	3.71	91.0	0	55	-3	1	40	-1					
PUEBLA	4.68	95.0	1	22	12	2	22	18					
OAXACA	6.53	111.3	1	32	-3	2	46	-3			3	22	
VERA CRUZ	6.61	91.5	1	34	-2	2	58	7			2	26	
CHIHUAHUA	9.47	344.0									3	22	
HOUSTON	12.35	33.1	2	55	3								
MERIDA	12.76	81.2	3	1	3						6	7	
LUBBOCK	14.06	4.4	3	15	1						6	2	
DALLAS	14.45	21.9	3	20	1								
TUCSON	14.45	332.9	3	19	0								
TUCSON TELE.	14.48	333.4	3	21	1								
SAN SALVADOR	14.55	111.4	3	21	1						7	26	
ALBUQUERQUE	15.66	349.8	3	34	0	6	38	14					
WICHITA MTS.	15.68	14.0	3	35A	0	6	38	14					
TULSA	17.57	20.1	3	58	0	7	20	14					
FAYETTEVILLE	18.30	23.6	4	2	-4	7	24	2			9	52	
GLEN CANYON	18.91	338.7	4	16	3								
BOULDER CITY	19.38	330.3	4	18	1				4	38	10	11	
PASADENA	19.78	320.5	4	21	-1	8	17	25			4	40	
GOLDEN	20.22	355.0	4	27	1	8	15	15					
MANHATTEN	20.42	14.7	4	29A	1	8	23	19					
LAWRENCE	20.56	17.7	4	29	-1								
ROLLA	20.77	25.7	4	33A	1	8	27	17					
PRICE	21.10	343.3	4	30A	-5						4	49	
LARAMIE	21.83	355.0	4	40	-2						11	51	
ST. LOUIS 1	22.10	27.7	4	45	0	8	48	14					
FLORISSANT	22.17	27.2	4	46	1	8	53	18					
DUGWAY	22.24	340.1	4	48A	2						9	45	
SALT LAKE C.	22.47	342.5	4	50	2				5	9	11	48	SCP
PRIEST	22.63	320.7	4	52A	2								
EUREKA	22.78	333.6	4	52	1				5	11	7	10	SCP
LICK	24.02	321.6	5	4A	1						5	25	
BLOOMINGTON	24.31	32.7	4	46A	-20	9	21	9					
RAPID CITY	24.50	359.9	5	8	0				5	31			
RENO	24.60	327.8	5	10K	1								
BERKELEY	24.74	321.7	5	10A	0	9	32	13					
HOPE	25.01	89.1	5	14	1								
DUBUQUE	25.23	22.0	5	15	0	9	12	-15					
CALISTOGA	25.45	322.6	5	38K	21								
CHICAGO JSA.	25.90	27.1	5	41	20								
MINERAL	26.12	326.6	5	23K	0						5	45	
UKIAH	26.15	322.7	5	43	20	10	2	20					
CHAPEL HILL	26.75	47.4	5	27	-2								
BOZEMAN	26.90	347.7	5	30	0				5	50	6	25	PP
BUTTE	27.56	345.7	5	36	0				5	56	6	29	PP
BLUE MTS.	27.89	338.1	5	38A	-1						8	51	PCP
CLEVELAND	28.59	35.3	5	44K	-1				6	4			
GEORGETOWN	29.67	43.8	5	54	-1	10	52	13					
LONDON ONT.	29.86	33.4	5	55	-2								
HUNGRY HORSE	30.10	345.4	5	56	-3								
CHINCHINA	30.44	114.8	6	5	3	11	5	14					
LONGMIRE	31.19	334.8	6	7A	-1						10	10	
FUQUENE	31.83	112.1	6	15	1								
BOGOTA	31.95	113.8	6	20	5	11	28	13					
PENTICTON	32.56	339.8	6	20	0								
PALISADES	32.86	42.9	6	23	0	11	35	6	6	42			
VICTORIA	33.26	335.1	6	26	0								
SAN JUAN	34.98	85.6	6	39	-2						9	32	PCP
BREBEUF	35.57	36.5	6	45A	-1				7	6	15	6	SS
BERMUDA	36.68	61.7	6	35	-20	12	30	3					

FORT FRANCE	40.32	90.0						7	50
TRINIDAD	41.15	96.1	7	30A	-2			9	50
HALIFAX	41.24	43.6	7	33	0			7	52
HUANCAYO	41.63	136.6	7	36	0				
SCHEFFERVLLE	44.73	29.2	8	1K	0				
AREQUIPA	47.38	136.8	8	22	0				
HAWAII V.OB.	49.00	279.1	8	34	-1				
ANTOFAGASTA	53.49	142.0	9	8	0				
COLLEGE	54.09	338.2	9	12	-1			10	53 PP
SANTA LUCIA	61.10	149.1	9	59	-3				
ALERT	64.96	5.4	10	26	-1			10	46
NORD	70.31	9.0	11	0	-1				
SKALSTUGAN	83.35	24.0	12	14	1				
FOLINIERE	83.55	40.5	12	15	1				
KIRUNA	83.73	18.6	12	16	1				
TOLEDO	84.41	49.8	12	20K	2	22 41	10	12 40	
MALAGA	85.26	52.8	12	22A	0	22 42	3		15 40 PP
GRANADA	85.70	52.2	12	39A	14				
SODANKYLA	85.84	17.4	12	25	0				
UMEA	86.14	21.8	12	26	-1				
BAGNERES	86.15	45.6	12	28	1				
ALMERIA	86.66	52.2	12	27K	-2			19	8
UPPSALA	87.53	25.7	12	32	-1				
STUTTGART	89.37	37.7						14	46
NURMIJARVI	89.86	23.0	12	45	1				
COLLMBERG	90.14	34.3	12	46	0				
QUETTA	129.68	11.2	18	54	1				
MAWSON	131.10	172.9	18	44A	-12				

SEPTEMBER 16 5.H 36.M 15.S EPICENTRE 35.76-118.04 DEPTH= 0.KM

A=-0.38230 B=-0.71789 C= 0.58179 D=-0.8826 E= 0.4700
G=-0.2735 H=-0.5135 K=-0.9133 HT= -0.1

SE= 2.72

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
CHINA LAKE	0.36	80.2	0	8	-4							
WOODY	0.67	265.2	0	13	-3							
FORT TEJON	1.13	218.4	0	22	-1							
TINEMAHA	1.31	353.2	0	25	0							
PASADENA	1.61	183.9	0	29	-1	0	51	-1				
STA. BARBARA	1.90	226.7	0	35	1							
BOULDER CITY	2.61	84.2	0	42	-2							
HAYFIELD	2.85	135.2	0	46	-1							
EUREKA	4.06	23.2	1	3	-2							
UKIAH	5.32	310.7	1	24	1	2	2	-24				
DUGWAY	6.06	41.4	1	32	-1	2	52	8				
PRICE	6.90	54.0	1	46A	1							
TUCSON	6.93	118.3	1	42	-3	3	45	39				
TUCSON TELE.	6.96	117.2	1	43	-3							
SALT LAKE C.	6.98	42.4	1	46	0							
BLUE MTS.	9.10	3.3	2	15	-1						3	12
ALBUQUERQUE	9.49	91.5	2	21	0	4	29	19				
GOLDEN	10.77	64.8	2	39	0							
BUTTE	11.05	20.3	2	43	1	5	47	59				
LARAMIE	11.22	56.7	2	45	0						6	5
BOZEMAN	11.22	26.0	2	47	2							
LONGMIRE	11.34	346.7	2	48K	2	4	45	-10				
SEATTLE	12.30	346.3	3	7	8							
CHIHUAHUA	12.37	121.7									6	9
HUNGRY HORSE	12.93	12.0	3	7	-1							
VICTORIA	13.36	344.3	3	15	2							
LUBBOCK	13.50	94.6	3	19	4						4	19
PENTICTON	13.60	355.6	3	19A	2							
RAPID CITY	14.08	49.3	3	21	-2							
BANFF	15.51	5.9	3	40	-2							
WICHITA MTS.	15.93	88.1	3	49	2	6	55	10			7	58
MANHATTEN	17.37	72.2	4	7	2	7	41	23	4	12		
DALLAS	17.80	93.2	4	14	3							
TULSA	18.04	83.0	4	14	0	7	40	7				
FAYETTEVILLE	19.31	82.0	4	25	-4							
HOUSTON	19.95	101.1	4	40	4							
ROLLA	21.01	76.4	4	46	-1	8	36	-2	4	51		
FLORISSANT	22.19	73.9	4	58	-1	9	9	9				
DUBUQUE	22.21	64.0	4	59A	-1	9	9	9	5	2		

ST. LOUIS 1	22.30	74.3	5	4	4	9	14	12				
TACUBAYA	23.26	129.5	5	18	8						12	22
BLOOMINGTON	25.20	72.7	5	8	-21							
CHAPEL HILL	31.46	78.1	6	27	2						16	25
COLLEGE	34.16	337.8	6	49	0						9	24 PCP
BREBEUF	34.70	59.8	6	51A	-2							
SAN JUAN	48.80	96.6	8	51	2						10	12 PCP
CHINCHINA	49.59	118.0	8	58	3							
ALERT	50.42	8.1	8	59K	-2							
FUQUENE	50.62	115.9	9	11	8							
BOGOTA	50.94	117.0	9	7	2							
AREQUIPA	68.10	131.3	11	4	0							
SODANKYLA	73.76	13.5	11	35	-3							
UPPSALA	77.96	21.1	11	59	-3							
MATUSIRO	79.10	307.2	12	5	-3							
JENA	82.98	29.4	12	26	-2							
COLLMBERG	83.25	28.5	12	29	-1						12	33 PCP
STUTTGART	83.68	32.0	12	32	0							
PRUHONICE	84.90	28.5	12	38	0							
KASPERSKE H.	85.19	29.5	12	38	-1							
MAWSON	148.11	180.7	19	46	2							

SEPTEMBER 16 19.H 6.M 32.S EPICENTRE 16.67 93.86 DEPTH= 42.KM

A=-0.06458 B= 0.95631 C= 0.28512 D= 0.9977 E= 0.0674
G=-0.0192 H= 0.2845 K=-0.9585 HT= 5.4

DEPTH OF FOCUS= 0.001R

SE= 2.42

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PORT BLAIR	5.09	192.7	1	17	2	2	28	14			1	30 PP
CHITTAGONG	5.98	341.5	1	30	2	2	40	4				
CALCUTTA	7.79	319.3	1	51	-2	3	16	-5				
HOWRAH	7.84	319.1	1	55	1	3	19	-3				
SHILLONG	9.05	348.5	2	7A	-4	3	58	6				
TOCKLAI	10.06	4.6	2	26	1	4	15	-2				
VISHAKHAPTNM	10.15	277.4	2	23	-3	4	10	-9				
BOKARO	10.39	314.6	2	31	2	4	18	-7			4	29 SS
KUNMING	11.80	43.1	2	49	1	5	5	5				
CHATRA	11.86	329.6	2	40	-9	4	47	-14				
LHASA	13.17	349.1	3	10	4							
MADRAS	13.72	256.4	3	9	-5	5	38	-8			3	19 PP
CHENGTU	16.73	31.8	3	54	2	7	3	7				
POONA	19.17	278.5	4	29	7	7	59	8			4	47 PP
NEW DELHI	19.39	310.6	4	23A	-2	8	0	4				
DEHRA DUN	19.84	316.0	4	31	1	8	16	11				
HONG KONG	19.94	70.5	4	30	-1	8	20	12	4	48	10	50
BOMBAY	20.16	279.5	4	33	0	8	19	7			8	57
LANCHOW	21.24	22.8	4	44A	0	8	42	9				
SIAN	22.11	34.9	4	52	-1							
LAHORE	23.12	313.4	5	21	18	9	13	6				
WARSAK DAM	26.44	314.9	5	36	2	10	1	-2				
PAOTOW	27.63	27.2	5	44	-1	10	27	5				
QUETTA	28.03	303.5	5	50	1	10	33	4	6	2		
KHOROG	28.59	320.8	5	50	-4	10	47	9				
ESEN BULAK	29.71	3.3	6	5	1							
PEKING	30.28	35.3	6	8	-1							
FRUNSE	30.81	331.7	6	15	1							
DUZHANBE	30.97	319.8	5	58	-17							
ULAN-BATOR	32.96	16.2	6	35	3							
SEMIPALATNSK	35.39	344.9	6	53	0							
VANNOVSKAYA	37.86	311.2	7	15	1							
CHANGCHUN	37.95	37.9	7	15	0							
SHIRAZ	39.94	296.4	7	32	1	13	40	7	7	58	9	18 PP
MATUSIRO	43.86	54.3	8	1	-3	14	32	1				
SVERDLOVSK	47.24	335.8	8	31	1							
KIROVOBAD	47.36	310.3	8	32	1							
YAKUTSK	51.84	20.6	9	3	-3	16	32	8				
MUNDARING	52.90	156.1	9	8A	-6							
JERUSALEM	54.96	297.3	9	29	0							
MOSCOW	57.56	326.1	9	47	0							
CHARTERS TS.	63.11	123.4	10	21	-4							
APATITY	63.58	338.1	10	28A	0							
KAJAANI	64.76	333.6	10	36	0							

NURMIJARVI	65.41	329.4	10 43	3		
UZHGOROD	65.52	316.2	10 41	0		
SODANKYLA	66.02	337.0	10 43	-1		
UMEA	67.95	332.7	10 56	0		
KIRUNA	68.44	337.0	10 59	0		
UPPSALA	68.82	328.3	11 1	-1		
TROMSOE	69.25	338.8	11 3	-1		
PRUHONICE	70.58	317.7	11 13	1		
MESSINA	70.82	305.2			20 27	
LJUBLJANA	70.85	313.6	11 14	0		
KASPERSKE H.	71.26	316.9	11 16	0		
SKALSTUGAN	71.47	332.2	11 16	-2		
COLLMBERG	71.49	319.2	11 18	0		
BROKEN HILL	71.58	248.2	11 16	-2		
TOOLANGI	72.56	139.2	11 21	-3	11 48	PCP
GARCHY	78.48	316.0	11 58	0		
ALERT	80.38	356.9	12 7	-1		
KIMBERLEY	80.56	236.3	12 13A	4		
MOULD BAY	85.14	7.6	12 31	-2		
COLLEGE	86.35	22.1	12 40	2	15 43	PP
BLUE MTS.	112.52	23.5	18 9	-22	19 8	PP
ALBUQUERQUE	125.15	20.4	18 56	0		
ROLLA	125.45	5.6	18 55	-1		
WICHITA MTS.	127.54	12.9	19 1	1	54 40	SS

SEPTEMBER 17 17.H 55.M 45.S EPICENTRE -21.13-179.07 DEPTH= 604.KM

A=-0.93343 B=-0.01508 C=-0.35844 D=-0.0162 E= 0.9999
G= 0.3584 H= 0.0058 K=-0.9336 HT= 4.4

DEPTH OF FOCUS= 0.090R

SE= 1.50

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
RAOUL ISLAND	8.15	172.9	2 1K	-1	3 33	-6			
APIA	10.08	44.8	2 20	0	4 12	0			
NOUMEA	13.51	262.4	2 55A	1	5 21	8			
KOUMAC	15.57	269.1	3 17A	3	5 56	7			
ONERAHI	15.67	200.1	3 18	3	6 1	10		5 11	
KARAPIRO	17.38	194.4	3 32A	1	6 27	7		5 5	
TUAI	17.90	189.6	3 34	-2	6 26	-3			
CHATEAU	18.59	193.2	3 40	-2	6 45	4		10 13	SCP
TARATA	18.85	195.9	3 46	1				5 5	
WELLINGTON	20.75	193.2	4 0R	-2	7 21	5		14 4	SCS
HONIARA	23.31	296.8	4 23	-2				7 10	
GEBBIES PASS	23.54	195.2	4 24	-3	8 15	14			
ROXBURGH	26.09	198.8						6 24	
BRISBANE	26.37	250.8	4 50	-2	8 40	-5			
RIVERVIEW	29.17	238.0	5 18A	2	9 30	1		12 58	
CANBERRA	31.32	236.3	5 35A	1	10 1	-1		10 55	SCP
CHARTERS TS.	32.43	265.5	5 45A	1	10 15	-3			
RABAUL	32.61	297.1	5 43	-2				8 33	
TOOLANGI	34.71	234.0	6 3A	0	10 49	-4	7 49	7 53	PP
SAVANNAH	35.03	226.4	6 6	1					
MOORLANDS	35.35	225.3	6 8	0					
TARRALEAH	35.77	225.9	6 12	1					
ADELAIDE	39.43	240.3	6 41A	0	11 56	-6		6 31	PP
HAWAII V.OB.	46.56	31.6	7 37	0					
HONOLULU	46.89	27.2	7 39	0	13 50	3		8 29	PCP
KIPAPA	47.03	27.2	7 40	0					
DARWIN	48.59	272.0	7 51	-1				8 46	
GUAM	49.45	310.9	7 57	-1	14 23	1			
CAPE HALLETT	51.56	184.2	8 14	0					
DUMONT	52.43	199.2	8 18	-2					
SCOTT BASE	57.18	183.5	8 57	4	16 12	8			
MUNDARING	58.15	244.8	8 58	-1					
WILKES	62.98	205.3	9 29	-2			11 29		
BYRD STATION	64.19	170.4	9 38	-1					
MANILA	68.67	296.1	10 10	4	18 26	3			
SOUTH POLE	69.00	180.0	10 7	-1					
MIRNY	70.00	205.2			18 34	-4		19 15	SCS
MATUSIRO	70.13	324.5	10 14K	-1	18 40	1			
ABUYAMA	70.40	321.6	10 16K	0					
Y.-SAKHLINSK	76.08	334.2	10 48K	0	19 45	1			

PETROPAVLOVK	76.33	346.4	10	49K	-1	19	44	-3						
ZO-SE	77.34	310.6	10	55K	0							14	8	*SP
UGLEGORSK	78.00	335.1	10	59K	0	20	5	1				11	31	
HONG KONG	78.11	299.6	11	1K	2	20	8	3						
VLADIVOSTOK	78.22	325.6	10	55K	-5	20	16	10						
CANTON	79.16	299.9	11	6K	1	20	19	3						
PRIEST	79.32	44.6	11	7K	1									
BERKELEY	79.32	42.4	11	6K	0	20	21	3				14	20	PP
LICK	79.40	43.1	11	7K	1							11	26	
UKIAH	79.50	40.9	11	7	0				13	29				
NANKING	79.57	310.2	11	8K	1	20	22	2						
CALISTOGA	79.59	41.6	11	7K	0									
PASADENA	79.85	47.4	11	9	1	20	29	6				13	25	
MAWSON	80.63	200.1	12	11	59				13	17				
MINERAL	81.23	40.7	11	15K	0									
RENO	81.86	42.2	11	19K	0									
BOULDER CITY	83.14	47.4	11	26	1				13	39				
TUCSON	84.10	52.3	11	31	1									
TUCSON TELE.	84.22	52.3	11	32	2				13	45		29	39	PKKP
EUREKA	84.27	43.9	11	30	-1				13	46		29	39	PKKP
VICTORIA	85.27	33.4	11	36	1									
SEATTLE	85.31	34.6	11	37	1									
PEKING	85.64	315.9	11	37K	0	21	23	4						
GLEN CANYON	85.89	47.9	11	39	1				13	54				
BLUE MTS.	86.43	38.9	11	41K	0	21	29	3				29	31	PKKP
DUGWAY	86.71	44.6	11	42K	0									
SALT LAKE C.	87.63	44.5	11	47	0				14	3		15	19	PP
PRICE	87.74	45.9	11	47K	0									
PENTICTON	87.74	34.3	11	48K	1									
SIAN	87.82	308.0	11	49K	1	21	47	8						
ALBUQUERQUE	88.58	51.6	11	51	0				14	7				
KUNMING	88.74	297.4	11	53K	1	21	51	4						
COLLEGE	89.04	12.8	11	51	-2				14	7				
FLAMING GRGE	89.33	45.3	11	55	0									
BUTTE	89.87	39.7	11	57	0				14	16		15	40	PP
CHENGTU	89.99	302.9	11	58	0	22	4	6				25	41	*SS
HUNGRY HORSE	90.25	37.2	11	58	-1									
BOZEMAN	90.61	40.6	12	0	0				14	16		15	46	PP
GOLDEN	91.49	47.8	12	5	1							22	9	
LARAMIE	92.06	46.3	12	7	0									
YAKUTSK	92.30	338.4	12	5K	-3									
LANCHOW	92.35	307.8	12	9K	1	22	26	7						
WICHITA MTS.	94.36	54.6	12	16	-2	22	45	9	14	34		16	12	PP
TULSA	96.93	54.3	12	28	-1	23	5	56	14	46		24	32	SP
MANHATTEN	97.52	51.0	12	31	-1									
SHILLONG	98.05	294.2	13	33K	59									
FAYETTEVILLE	98.21	54.6	12	34	-1							14	50	
TIKSI	99.09	345.3										16	48	PP
SEMIPALATNSK	112.71	317.0	17	27	-2									
ALERT	114.24	7.4	17	31	-1									
PALISADES	114.78	53.6										25	44	
FRUNSE	115.82	308.3	17	35	0									
WARSAK DAM	117.18	298.2	17	32	-6									
SAN JUAN	117.26	79.6	17	36	-2									
TASHKENT	119.68	306.3	17	41	-2							19	17	PP
QUETTA	120.52	293.3	17	45	1							20	11	PP
SVERDLOVSK	123.94	325.1	17	50	-1									
KIMBERLEY	125.32	205.8	17	54K	0									
ASHKABAD	128.09	302.2	17	59	0									
SCORESBY SD.	128.81	9.7	17	49	-11									
KEVO	128.89	348.7	17	59	-1							20	24	SKP
APATITY	129.30	344.5	17	59K	-2				20	25		20	16	PP
TROMSOE	130.29	351.8	17	48	-15									
BULAWAYO	130.85	215.2	18	3	-1							20	32	PP
SODANKYLA	131.00	347.2	17	46	-18				20	24		20	32	SKP
KIRUNA	131.73	350.2	17	51	-15				20	34				
SHIRAZ	132.94	291.3	18	13A	5				20	43		21	38	
KAJAANI	133.49	344.2	17	56	-13				20	34		20	40	SKP
TEHERAN	133.78	299.7	18	9	-1				20	43		18	30	SP
WINDHOEK	133.79	200.9	18	9	-1									
UMEA	135.40	347.9	17	59	-14				20	39				
BROKEN HILL	135.48	219.7	18	1	-12							20	47	PP
MOSCOW	135.97	330.9	18	13	-1				20	41				
PULKOVO	136.12	339.0							20	40		21	46	PKS
SKALSTUGAN	136.89	352.6	18	4	-11				20	51				
GORIS	137.24	305.8	18	5	-11							21	52	PKS
NURMIJARVI	137.25	342.9	18	4	-12				20	40		20	51	SKP
HELSINKI	137.45	342.5	18	5	-11									
TIFLIS	137.85	309.4	18	17	0				20	42		21	55	PKS

UPPSALA	139.53	347.1	18 11	-9			21 20	SKP
BERGEN	140.65	356.6	18 15	-8				
BANDEIRA	142.18	199.8	18 21K	-5			21 5	
KARLSKRONA	143.36	346.3	18 21	-7	20 52			
SIMFEROPOL	143.82	318.8	18 28	0				
LWIRO	144.16	232.9	18 30K	1				
COPENHAGEN	144.44	348.8	18 28K	-1				
LWOW	146.02	332.9	18 30	-2			25 3	
DURHAM	146.36	2.6	18 34	2				
KSARA	146.68	299.7	18 32	-1	20 57		21 57	*SPKP
KRAKOW	147.46	337.0	18 38	4				
JERUSALEM	147.64	296.3	18 34K	0	21 2			
RACIBORZ	148.04	338.8	18 39	4			18 45	PKP2
WITTEVEEN	148.06	353.4	18 39	4				
COLLMBERG	148.44	345.5	18 34	-1			22 13	PP
HALLE	148.49	346.8	18 35	0			18 41	PKP2
ISTANBUL UN.	149.05	316.2	18 41K	5				
JENA	149.11	346.8	18 35	-1	<1 3		22 16	PP
PRAGUE	149.21	342.9	18 43K	7			22 19	PP
PRUHONICE	149.26	342.7	18 43	6				
KEW	149.71	1.5	18 38	1				
CHEB	149.72	345.3	18 42	5			20 24	
BENSBERG	149.83	352.1	18 37K	0	<1 10			
HURBANOVO	149.91	336.5	18 46	9				
BUDAPEST	149.92	335.1	18 40	3			22 5	
BRATISLAVA	150.05	338.1	18 37	-1	21 0			
VIENNA-H.	150.23	339.0	18 38	0			18 55	PKP2
KASPERSKE H.	150.30	343.1	18 43	5	<1 11			
TIMISOARA	150.34	330.6	18 46	8				
FELDBERG	150.37	350.2	18 41	3			19 4	
DOUPBES	150.95	355.1	18 38	-1			21 13	
HEIDELBERG	151.12	349.4	18 39	0				
BELGRADE	151.40	330.2	18 39A	-1			21 20	
SOFIA	151.46	324.0	18 37	-3			18 58	
STUTTGART	151.63	348.3	18 40A	0	21 8		21 27	SKP
TUBINGEN	151.90	348.5	18 40	0			19 1	
STRASBOURG	152.07	350.3	18 40A	-1			20 37	
EBINGEN	152.25	348.4	18 41	0			19 2	
PARIS	152.36	357.8	18 49	8			21 15	PP
FOLINIERE	152.40	2.0	18 41	0			18 48	PKP2
ZAGREB	152.46	336.9	18 41	0				
RAVENSBURG	152.50	347.2	18 40	-1			19 3	
LJUBLJANA	152.77	339.0	18 39A	-3	20 46		21 15	PP
BASLE	153.12	350.0	18 50	8			19 5	
CHUR	153.41	346.7	18 43	0			19 7	
BESANCON	153.63	352.2	18 43	0			19 6	
GARCHY	153.86	356.7	18 52K	9			22 49	PP
ATHENS	154.13	315.4	18 43	-1			19 11	
BAGNERES	158.12	1.5	18 49	0			19 25	
COIMBRA	159.39	20.7	18 50K	0			23 15	PP
TOLEDO	160.84	11.7	18 53K	1	19 7		23 26	PP
GRANADA	163.53	12.8	19 51K	56			23 41	PP
MALAGA	163.79	15.5	18 54	-1			23 40	PP
BENI ABBES	170.62	16.7	19 0	1	21 27		24 17	PP

SEPTEMBER 18 0.H 29.M 2.S EPICENTRE 7.56 -82.40 DEPTH= 0.KM

A= 0.13108 B=-0.98272 C= 0.13069 D=-0.9912 E=-0.1322
G= 0.0173 H=-0.1295 K=-0.9914 HT= 6.8

SE= 2.73

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
BALBOA HTS.	3.14	63.5	0	50	-2	1	36	6					
CHINCHINA	7.22	110.5	1	46A	-3	3	3	-10					
GALERAZAMBA	7.73	65.0	1	55	-2								
SANTIAGO MA.	8.38	315.2	2	6	0								
BOGOTA	8.78	108.9	2	11	0								
FUQUENE	8.86	103.0	2	9	-3								
SAN SALVADOR	9.03	312.9	2	15	0	4	1	3					
HOPE	11.75	27.4	2	54	2	5	14	9			12	18	PCS
COMITAN	12.85	313.1									4	46	
MERIDA	15.03	333.1	3	34	-1	6	34	10			7	58	
CARACAS	15.56	78.0	3	38K	-4	6	59	23					
OAXACA	16.88	305.2	4	1	2	7	30	23					

PUEBLA	19.12	308.2	4 34	7				8 34
SAN JUAN	19.15	54.3	4 25	-2	7 46	-12		
TACUBAYA	20.11	307.5	4 42	4	8 37	18		
HUANCAYO	20.71	160.1	4 42	-2	8 41	9		
TRINIDAD	20.96	80.0	4 43	-4	8 37	0		
ST. KITTS	21.51	61.3	4 51	-1				
ST. CLAUDE	21.93	65.6	4 58	1	9 1	6		
FORT FRANCE	22.02	69.3	4 56	-2	9 7	10		
LEON	22.99	307.9						6 16
GUADALAJARA	24.07	305.0	5 22	4	9 46	13		12 58
HOUSTON	25.20	332.6	5 29	0				
AREQUIPA	26.19	155.7	5 35	-3				
LA PAZ	27.76	149.5	5 49	-3	10 40	6		
MAZATLAN	27.79	306.6			10 30	-5		8 10
DALLAS	28.48	334.0	5 57	-2				
LITTLE ROCK	28.59	342.7	5 57	-3				
BERMUDA	29.69	31.3	6 6	-4				
FAYETTEVILLE	30.37	340.9	6 13	-3				
CHIHUAHUA	30.63	316.1	6 48	30	11 58	38		15 38
TULSA	30.76	338.4	6 16	-3	11 16	-6		7 16
WICHITA MTS.	30.86	333.4	6 17	-3				7 18 PP
ROLLA	31.41	345.5	6 22	-3				
LUBBOCK	31.53	327.9	6 24	-2	11 28	-6		
WASHINGTON	31.57	8.0	6 28	2	10 40	-55		
GEORGETOWN	31.57	8.0	6 27	1	11 36	1		
BLOOMINGTON	31.71	353.9	6 25	-2	11 30	-7		
ST. LOUIS 1	31.74	348.3	6 26	-2	11 18	-20		
FLORISSANT	31.92	348.2	6 26	-3	11 21	-19		
MORGANTOWN	32.01	3.6	6 31	1				13 44
PHILADELPHIA	32.90	10.3	6 12	-26	10 57	-59		
LAWRENCE	33.35	341.6	6 38	-4				
CLEVELAND	33.79	1.2	6 47K	1	12 6	-3		
MANHATTEN	33.99	340.1	6 45A	-2	11 40	-32		
PALISADES	34.16	11.5	6 51	2	12 19	4	7 0	17 37 SCS
CHICAGO USA.	34.51	353.1	6 50	-2				
ALBUQUERQUE	35.10	324.4	6 56A	-1				15 28
LONDON ONT.	35.35	1.5	7 2	3				
DUBUQUE	35.57	349.5	6 58	-3	12 30	-7		
TUCSON TELE.	36.06	317.0	7 6	1				
TUCSON	36.08	316.8	7 6	1	12 55	10		8 32 PP
COPIAPO	36.61	161.9	7 7	-3				
GOLDEN	38.06	330.8	7 21	-1	12 58	-17		
BREBEUF	38.56	9.9	7 24	-2	13 25	2	7 36	9 6 PP
LARAMIE	39.42	332.2	7 33	0				9 6
GLEN CANYON	39.51	322.1	7 36A	2				
HALIFAX	40.38	20.8	7 44K	3				
PRICE	40.83	325.8	7 44A	-1				
BOULDER CITY	40.96	318.4	7 47	1	14 7	8		9 11 PP
FLAMING GRGE	41.00	328.4	7 45A	-1				17 52 SCS
SALT LAKE C.	42.21	326.2	7 57	1	14 22	5		9 4 PP
PASADENA	42.25	313.9	7 58	1	14 33	15		9 43 PP
SANTA LUCIA	42.28	165.3	8 0	3	14 16	-2		9 37 PP
DUGWAY	42.36	324.9	7 58A	1				
EUREKA	43.77	321.8	8 9A	0	15 49	69		
PRIEST	45.02	314.9	8 19A	0				
BOZEMAN	45.31	331.8	8 21A	0	15 7	5		10 3 PP
RENO	46.22	319.4	8 29A	0				9 34
BUTTE	46.29	331.0	8 28	-1	15 18	2		10 20 PP
LICK	46.29	315.8	8 30A	1				9 8
BERKELEY	46.98	316.1	8 35A	0	15 37	11		12 1
CALISTOGA	47.59	316.8	8 39A	0				
MINERAL	47.82	319.3	8 40A	-1				9 18
BLUE MTS.	47.92	326.7	8 40A	-2	15 39	0		14 56
UKIAH	48.26	317.1	8 47	2	15 52	18		10 57 PP
HUNGRY HORSE	48.66	332.2	8 46A	-2	15 56	6		
SCHEFFERVLLE	48.76	12.0	8 45	-3				
SPOKANE	49.82	329.6	8 58	1				18 50
BANFF	51.38	333.9	9 7	-1				
LONGMIRE	51.56	326.1	9 8	-2				22 28
PENTICTON	52.02	329.9	9 12A	-1				
SEATTLE	52.37	326.8	9 17	1				
VICTORIA	53.49	327.1	9 23A	-1				
ANGRA DO HO.	58.36	49.0	10 7	8	18 15	14		
PONTA DELGDA	59.27	50.5	10 6A	0	18 20	7	10 16	18 47 PS
RESOLUTE	67.46	356.4	10 57	-3				
THULE	69.26	3.5	11 8A	-3				
REYKJAVIK	70.63	23.9	11 22A	3				
HAWAII V.OB.	71.41	287.9	11 26	2	20 49	7		

MOULD BAY	71.53	351.3	11	22K	-3	20	42	-1				
SIDA	72.07	24.9	11	32	4							
LISBON	72.25	51.9	10	51K	-38	20	15	-37			13	26 PP
SERRA PILAR	72.87	49.4	11	30A	-3	20	56	-3	11	41	14	15 PP
COLLEGE	72.88	336.0	11	30A	-3	21	0	1			14	11 PP
COIMBRA	72.92	50.4	11	32K	-1	21	3	4	11	44		
SCORESBY SD.	73.30	17.8	11	34	-1	21	1	-2				
KIPAPA	73.92	290.1	11	41	2							
HONOLULU	74.00	289.9	11	40	1	21	10	-1			14	9 PP
ALERT	75.39	2.7	11	46A	-1	21	23	-4				
MALAGA	75.91	54.1	11	50K	0	21	36	3			14	42 PP
TOLEDO	76.26	50.9	11	51A	-1	21	40	4			14	55 PP
GRANADA	76.56	53.7	11	59K	5	21	45	5			14	59 PP
ALMERIA	77.46	54.0	12	1A	2	21	47	-2			15	2 PP
JERSEY	77.98	41.4	12	4	2							
ABERDEEN	78.43	33.2	11	55	-9	21	56	-4			14	48 PP
DURHAM	78.57	35.7	11	51K	-14	22	2	1			15	14 PP
ALICANTE	79.03	52.5	12	10	3	22	7	1			15	7 PP
FOLINIERE	79.04	41.9	12	6	-1							
NORD	79.09	7.8	12	7A	-1							
KEW	79.20	39.1	12	9	1	22	6	-2			15	9 PP
BAGNERES	79.45	47.7	12	9	-1						23	16
TORTOSA	79.74	49.9	12	9	-2	22	10	-4				
PARIS	81.00	41.8	12	18	0	22	27	0			14	39 PP
GARCHY	81.43	43.3	12	19	-1	22	32	1			22	37 SKS
CLERMONT-FD.	81.52	44.9	12	20K	-1	22	36	4				
DOURBES	82.34	40.5	12	23	-2	22	41	0				
BERGEN	82.35	30.0	12	33	8	22	40	-1				
DE BILT	82.61	38.4	12	28K	2	22	45	2			28	18 SS
BESANCON	83.41	43.3	12	28	-2						15	42
WITTEVEEN	83.48	37.6	12	32	1							
BENSBERG	83.92	39.5	12	33K	0	22	55	-2			15	59 PP
NEUCHATEL	84.09	43.5	12	38	4	22	58	0				
ISOLA	84.40	46.3	12	39	4							
BASLE	84.47	42.9	12	36	0	22	59	-3				
STRASBOURG	84.51	41.8	12	36	0	23	0	-2			14	59 PP
MONACO	84.71	46.7	12	38	1							
FELDBERG	84.80	40.2	12	37	0							
HEIDELBERG	85.05	41.0	12	39	0							
EBINGEN	85.34	42.2	12	39	-1							
TUBINGEN	85.37	41.8	12	41	1							
SKALSTUGAN	85.37	26.6	12	37	-3							
STUTTGART	85.48	41.6	12	40	-1	23	4	-8			24	16 PPS
PAVIA	85.81	45.1									23	40 SCS
RAVENSBURG	85.82	42.5	12	43	0							
CHUR	85.87	43.5	12	43	0	23	17	1				
COPENHAGEN	86.55	34.4	12	49A	3	23	44	22				
JENA	86.70	39.2	12	46	-1	23	13	-11			16	9 PP
HALLE	86.85	38.6	12	48	0	23	26	1				
TROMSOE	86.89	20.1	12	47	-1							
CHEB	87.32	40.0	12	54	4	23	23	-7			16	58
FLORENCE X.	87.46	46.4	12	58	7	23	31	0	14	2	15	58 PP
COLLMBERG	87.53	38.7	12	50K	-1	23	34	2				
PADOVA	87.67	44.7	13	8	16	23	38	5			24	48 PS
KIRUNA	87.86	21.7	12	51	-1	23	31	-4			13	38
KARLSKRONA	88.21	33.7	12	55	1							
KASPERSKE H.	88.24	40.8	12	53	-1						16	27 PP
UPPSALA	88.53	29.8	12	53	-3	23	35	-6			16	28 PP
ROME	88.63	48.1	12	57K	1	23	30	-12	13	16	15	58 PP
PRAGUE	88.63	39.8	12	58	2	23	46	4			16	23 PP
PRUHONICE	88.72	39.9	12	57	0	23	45	2			16	22 PP
UMEA	88.80	25.7	12	55	-2	23	42	-1			22	40
TRIESTE	88.93	44.2	13	0	2	23	29	-16			16	36 PP
AQUILA	89.23	47.5	13	0	1	23	30	-17	13	14	16	18 PP
LJUBLJANA	89.39	43.7	13	1	1	23	32	-17			16	38 PP
BYRD STATION	89.47	186.0	12	57	-3							
KEVO	89.55	19.2	13	0	-1	23	51	1			16	26 PP
VIENNA-H.	90.22	41.3	13	5	1	23	59	3			16	41 PP
SODANKYLA	90.26	21.5	13	2	-2	23	57	0			16	40 PP
ZAGREB	90.44	43.8	13	8	3	23	38	-20				
BRATISLAVA	90.71	41.3	13	6	0	24	0	-1			16	30 PP
RACIBORZ	91.01	39.3	13	10	3						13	16 PCP
HURBANOVO	91.50	41.5	13	15	5	24	11	3			25	18 PS
MESSINA	91.58	51.3	13	7	-3	24	4	-5	13	20	25	20 PS
NURMIJARVI	91.74	28.2	13	11	0	23	42	-28			16	49 PP
KAJAANI	91.86	24.4	13	10	-1						16	54 PP
HELSINKI	91.99	28.5	13	17	5							
KRAKOW	92.10	39.1	13	18	6						16	51 PP
BUDAPEST	92.13	41.7	13	13	1	23	45	-28			16	36 PP

WARSAW	92.21	36.8	13	12	-1	24	17	3			16	51 PP
TARANTO	92.43	48.8	13	23	9	23	38	-38			25	28 PS
APATITY	92.59	20.2	13	14	-1	24	8	-9			16	56 PP
TITOGRAD	93.47	46.6	13	22	3	23	53	-32			17	18 PP
BELGRADE	93.74	44.1	13	20A	0	23	48	-39			25	52 PS
TIMISOARA	94.03	43.0	13	30	9							
PULKOVO	94.65	27.9	13	28	4	24	32	-3			17	14 PP
LWOW	94.71	38.6	13	28A	4	24	38	2			17	13 PP
SKOPJE	95.15	46.6	13	29	3	23	37	-25				
SOFIA	96.31	45.6	13	41	9	24	9	1			17	33 PP
LUANDA	96.67	98.0	13	37A	4							
BANDEIRA	97.40	104.1	13	38	1	25	4	50			17	34 PP
SOUTH POLE	97.51	180.0	13	36	-1				13	40		
ATHENS	97.90	50.0	13	38K	-1	24	13	-3			25	6 S
TIKSI	98.32	350.4	13	41	0	25	4	45			17	47 PP
MOSCOW	99.96	29.8	13	50	2	24	26	-1			17	54 PP
PETROPAVLOVK	100.70	327.5	13	56	4	24	30	0			18	1 PP
ISTANBUL UN.	100.84	45.8	13	51	-1	25	32	61				
WINDHOEK	101.60	111.5	13	57	1							
CAPE HALLETT	102.41	197.4	13	58	-1						17	58 PKP
SIMFEROPOL	102.85	40.7	14	3	2	24	39	-2			18	13 PP
HERMANUS	103.82	123.5				24	54	9			18	30 PP
KARAPIRO	104.11	232.9									18	30 PP
WELLINGTON	104.58	229.4				24	48	-1			18	30 PP
YAKUTSK	106.31	344.9	14	19	777							
ROXBURGH	108.16	224.7				25	8	4			28	36 PS
KSARA	108.58	50.7	14	35	777						19	0 PP
JERUSALEM	108.84	52.9	14	35	777						19	0 PP
SVERDLOVSK	109.04	20.5	14	37	777						19	14 PP
TIFLIS	111.23	39.8				25	11	-6			19	15 PP
LWIRO	111.31	89.5	14	45	-231	25	30	13			29	11 PS
BROKEN HILL	112.00	102.5	18	38	1							
BULAWAYO	112.26	108.6	18	38	0							
Y.-SAKHLINSK	112.54	328.3				25	24	2			19	26 PP
GORIS	113.40	41.1									19	32 PP
DUMONT	114.29	197.1									19	40
CHANGALANE	115.34	115.4									29	46 PS
HONIARA	118.37	263.4									20	5
TEHERAN	118.83	42.1	18	53	3						20	6 PP
SEMIPALATNSK	120.34	12.8	18	54	1							
WILKES	120.63	186.0	19	0	6	26	16	24			20	38 PP
VLADIVOSTOK	120.71	331.3				25	54	2			20	31 PP
TUKUBASAN	120.94	320.4	19	8K	13	26	2	9			20	24 PP
MIRNY	121.02	177.9	19	0	5	26	3	10			20	28 PP
ASHKABAD	121.80	36.1	19	2	6						23	6 PPP
MATUSIRO	121.91	321.9	18	59	3						20	31 PP
SHIRAZ	123.03	47.3	19	0K	1	26	7	7			22	4 PP
ULAN-BATOR	124.15	352.5	19	13	12							
RIVERVIEW	124.24	234.1									30	57 PS
BRISBANE	124.27	242.0									20	48 PP
TASHKENT	124.85	25.8	19	7	5						21	8 PP
CANBERRA	125.52	231.7	19	4	1						38	4 SS
RABAUL	125.64	270.2	19	5	1						20	52
TOOLANGI	127.41	227.9	19	7	0						21	13 PP
GUAM	128.74	293.9	19	11	1						22	44 PP
KHOROG	129.00	26.7	19	16	6						21	24 PP
PEKING	129.63	341.5	19	14	3						21	21 PP
TANANARIVE	130.15	108.3	19	20	8						21	34 PP
PAOTOW	130.75	347.5	19	14	1						21	21 PP
CHARTERS TS.	131.31	250.0	19	18	4						21	40 PP
WARSAK DAM	131.86	29.3	19	18	3						22	51 PP
QUETTA	132.31	36.7	19	16	0				19	28	21	38 PP
ADELAIDE	133.47	228.1	19	22	3						21	50 PP
ZO-SE	135.42	330.7	19	23	1						21	52 PP
KARACHI	136.15	41.8	19	22	-1							
LANCHOW	136.23	352.7	19	26	2						22	4 PP
SIAN	137.06	346.2	19	28	3						22	7 PP
DEHRA DUN	137.92	25.6	19	23	-4						23	12
NEW DELHI	139.03	27.9	19	35	6						22	33 PP
CHENGTU	141.51	351.1	19	30	-3							
LHASA	142.48	9.4	19	37	2							
BOMBAY	144.11	42.6	19	41	3						22	55 PP
POONA	145.06	41.8	19	40A	1						20	2 PKP2
CANTON	145.87	333.6	19	44A	3							
SHILLONG	146.60	9.4	20	41	59						21	37
BOKARO	146.74	20.0									19	54 PP
DARWIN	146.94	259.0	19	46	4							
KUNMING	147.13	351.4	19	46	3							

CHITTAGONG	149.73	10.7	19	57	10				20	4	23	42 PP
PERTH	150.38	212.6	20	1	13						23	33 PP
MADRAS	153.23	40.4									21	43
DJAKARTA	170.73	277.9	20	11	1						26	11

SEPTEMBER 18 5.H 13.M 48.S EPICENTRE 7.74 -81.52 DEPTH= 141.KM

A= 0.14606 B=-0.98019 C= 0.13375 D=-0.9891 E=-0.1474
G= 0.0197 H=-0.1323 K=-0.9910 HT= 6.8

DEPTH OF FOCUS= 0.017R

SE= 4.02

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
BALBOA HTS.	2.29	57.9	0	33	-5	1	23	15					
CHINCHINA	6.48	114.8	1	34K	0	3	0	13					
GALERAZAMBA	6.87	63.4	1	52	13	3	34	38					
BOGOTA	8.03	112.2	1	56K	1	3	37	13					
FUQUENE	8.06	105.8	1	54	-1								
CARACAS	14.67	78.1	3	26	5						6	28	
SAN JUAN	18.34	53.3	4	13	7								
TRINIDAD	20.07	80.2	4	32	8	8	22	26					
HUANCAYO	20.60	162.5	4	26	-3								
ST. KITTS	20.66	60.7	4	37	7								
FORT FRANCE	21.15	69.0	4	21	-14								
AREQUIPA	26.01	157.6	5	21	0								
LITTLE ROCK	28.70	341.2	5	44	-1								
DALLAS	28.72	332.6	5	44	-2								
FAYETTEVILLE	30.50	339.5	6	0	-2								
TULSA	30.93	337.1	6	3	-2								
WICHITA MTS.	31.10	332.1	6	3	-4				6	15	9	2	
ROLLA	31.46	344.2	6	9A	-1	11	39	33					
BLOOMINGTON	31.63	352.6	6	12A	1	11	48	39					
FLORISSANT	31.94	346.9	6	14	0								
MANHATTEN	34.13	338.9	6	32	-1								
ALBUQUERQUE	35.47	323.4	6	43	-1						7	16	PP
DUBUQUE	35.56	348.3	6	45	0								
TUCSON TELE.	36.53	316.1	6	54	1								
TUCSON	36.55	315.9	6	53	0								
BREBEUF	38.24	9.0	7	14	7								
GOLDEN	38.33	329.8	7	8	0								
GLEN CANYON	39.91	321.3	7	22	1								
RAPID CITY	40.85	336.0	7	29	0								
PRICE	41.18	325.0	7	32	0								
FLAMING GRGE	41.31	327.6	7	32	-1								
BOULDER CITY	41.41	317.7	7	32	-2								
SALT LAKE C.	42.55	325.5	7	43	0						9	38	PP
DUGWAY	42.72	324.1	7	44	0								
PASADENA	42.76	313.2	7	46	1	14	15	18					
EUREKA	44.18	321.1	7	56	0								
PRIEST	45.51	314.3	8	8A	1								
BOZEMAN	45.57	331.1	8	8	1						8	27	
BUTTE	46.56	330.3	8	15	0						9	49	PP
RENO	46.66	318.8	8	17K	1								
LICK	46.78	315.2	8	18K	1								
BERKELEY	47.46	315.5	8	34K	12	15	20	16					
CALISTOGA	48.06	316.2	8	27K	0								
BLUE MTS.	48.25	326.1	8	26	-2						8	52	
MINERAL	48.26	318.7	8	28K	0								
SCHEFFERVLLE	48.41	11.4	8	32	3								
HUNGRY HORSE	48.92	331.6	8	33	0								
LONGMIRE	51.91	325.6	8	55	-1								
PENTICTON	52.30	329.3	8	59A	0								
VICTORIA	53.82	326.6	9	17	7								
MOULD BAY	71.49	351.1	11	8A	1								
COLLEGE	73.08	335.9	11	17	1								
ALERT	75.17	2.6	11	31	3								
TOLEDO	75.47	50.9				21	30	33			31	52	
GRANADA	75.76	53.7	11	44A	13						12	2	PCP
BENI ABBES	76.97	60.9	11	46	8								
FOLINIERE	78.33	41.9	11	54	8								
STUTTGART	84.77	41.6	12	26	7								
TROMSOE	86.43	20.2	12	35	8								
COLLMBERG	86.85	38.8	12	38	9						18	46	

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

KIRUNA	87.37	21.8	12 37	5
KASPERSKE H.	87.54	40.9	12 41A	8
SODANKYLA	89.78	21.6	12 50	7
NURMIJARVI	91.17	28.4	12 55	5
KAJAANI	91.34	24.5	13 1	11
SOUTH POLE	97.69	180.0	13 26	7
MATUSIRO	122.31	322.5	18 40	2
TOOLANGI	128.18	227.7	18 53	4

SEPTEMBER 18 6.H 10.M 22.S EPICENTRE 2.22 127.0U DEPTH= 0.KM

A=-0.60133 B= 0.79808 C= 0.03846 D= 0.7987 E= 0.6018
G=-0.0231 H= 0.0307 K=-0.9993 HT= 7.2

SE= 2.30

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MANILA	13.68	335.1	4 22	64				7 22
DARWIN	14.99	165.4	3 37	2	6 36	13		
BAGUIO CITY	15.46	336.3	3 42	1	6 38	4		
NHTRANG	20.23	300.3	4 37	-3				
HENGCHUN	20.58	343.3			8 33	4		
GUAM	20.80	56.6	4 43	-3				
LEMBANG	21.33	244.9	4 52	1	8 53	9		
HWALIEN	22.24	346.9	4 56	-4				
TAIPEI	23.29	347.3						5 52
HONG KONG	23.53	329.0	5 13	0	9 16	-8		
CANTON	24.61	328.5	5 24A	1	9 39	-4		
RABAUL	25.95	104.2	5 34	-2				6 0
CHARTERS TS.	29.13	140.4	6 5	0				14 12
ZO-5E	29.25	349.8	6 7	1	10 55	-4	6 28	
NANKING	30.68	346.2	6 19	0	11 19	-2	6 40	13 5 55
KUNMING	32.64	316.3	6 36A	0	11 46	-6	6 54	7 44 PP
ABUYAMA	33.45	12.8	6 41K	-2				
HONIARA	34.81	109.9						8 20
MUNDARING	35.51	195.9	7 1K	0				
CHENGTU	35.69	324.8	7 1A	-1	12 29	-10		7 31 *SP
MATUSIRO	35.69	15.6	7 0	-2	12 26	-13		
SIAN	36.06	334.1	7 6	0	12 41	-4		8 52 PPP
BRISBANE	38.51	141.6	7 26	0	13 19	-3		
ADELAIDE	38.59	164.5	7 26A	-1				13 18
PEKING	38.90	346.7	7 30A	1	13 23	-5		
LANCHOW	39.91	336.2	7 37A	-1	13 36	-8	7 59	8 7 *SP
VLADIVOSTOK	40.96	5.5	7 54	8	14 6	7		
PAOTOW	41.16	340.3	7 49K	1	13 56	-6		
RIVERVIEW	42.47	149.7			14 35	14		
CANBERRA	42.65	153.1	8 1A	1				9 45 PP
KOUMAC	42.98	123.6	8 3	0				
TOOLANGI	43.14	158.4	8 4	0				9 49 PP
LHASA	43.69	312.3	8 8	-1	14 31	-8		
CHATRA	45.33	306.4	8 18K	-4				
NOUMEA	45.57	124.5	8 24A	0				
Y.-SAKHLINSK	46.67	14.8	8 31	-2				
TARRALEAH	47.69	160.5	8 42	1				
MOORLANDS	48.06	159.9	8 43	0				
UGLEGORSK	48.44	13.2	8 46K	0	15 43	-4		
FSEN BULAK	51.53	333.1	9 10	0	16 24	-6		
IRKUTSK	53.35	352.8	9 24	0	16 52	-3		
DEHRA DUN	54.07	306.4	9 46	17				16 53
NEW DELHI	54.15	304.0	9 24K	-6				
POONA	54.49	291.2	9 30A	-2				
PETROPAVLOVK	57.01	22.2	9 57	7				
LAHORE	57.49	306.4	9 53	-1				
YAKUTSK	59.69	1.5	10 7	-2	18 14	-5		
KARAPIRO	60.03	136.8	10 11	0				
ALMATA-2	60.06	320.0	10 10A	-2				
WARSAK DAM	60.51	308.2	10 15	0				
CHATEAU	60.67	138.1	10 15	-1				
TUAI	61.56	137.0	10 19	-3				
FRUNSE	61.65	318.5	10 22	0	18 39	-5		
KHOROG	61.71	311.9	10 22	-1	18 38	-7		
KARACHI	61.92	296.9	10 23	-1				
ANDIJAN	62.32	315.6	10 27	0	18 45	-8		
NAMANGAN	62.90	315.6	10 31	0	18 53	-7		
QUETTA	63.18	302.8	10 28	-4				
DUZHANBE	64.13	312.2	10 38A	-1	19 10	-5		

TASHKENT	64.70	315.2	10	43	1						
TIKSI	69.32	0.3	11	9	-3	20	12	-6			
DUMONT	69.36	174.5	11	10	-2					13	44 PP
WILKES	69.42	187.0	11	11K	-1	20	17	-2			
VANNOVSKAYA	72.06	309.2	11	30	2						
HONOLULU	75.13	68.7				21	28	4			
*IPAPA	75.21	68.6	11	54	7						
SVERDLOVSK	75.38	328.6	11	45	-3	21	18	-9			
SHIRAZ	75.42	299.9	11	46A	-2	21	16	-12	12 9	22	56 *SS
TEHERAN	77.03	306.0	11	53	-4						
CAPE HALLETT	79.28	167.7	12	9	0						
TANANARIVE	80.74	250.5	12	22A	5					12	42
GORIS	81.39	309.4	12	21A	1	22	29	-2			
*IROVOBAD	81.47	310.6	12	20	-1	22	26	-6			
TIFLIS	82.70	311.6	12	27	0	22	40	-5			
SCOTT BASE	82.81	172.2	12	28	0						
COLLEGE	85.95	25.3	12	46	2						
MOSCOW	87.82	325.5	12	52	-1						
APATITY	89.33	337.5	13	OK	0	23	48	-1			
KSARA	89.71	303.7	13	4	2	23	51	-1			
SIMFEROPOL	90.49	314.8				23	41	-18			
PULKOVO	91.47	329.8				24	0	-8			
SODANKYLA	91.96	337.6	13	8	-4					13	32
KAJAANI	92.08	334.3	13	10	-3					13	34
SOUTH POLE	92.20	180.0	13	14	1						
MOULD BAY	93.37	12.7	13	19	0						
NURMIJARVI	94.14	331.0	13	21	-1	24	30	-1		16	44
TROMSOE	94.16	340.5	13	22	0						
KIRUNA	94.16	338.6	13	21	-1					13	42
UMEA	95.36	334.7	13	27	-1	24	33	30			
UPPSALA	97.71	331.3	13	46	8						
UZHGOROD	98.01	319.6	13	41	1						
SKALSTUGAN	98.77	335.7	13	42	-1						
BROKEN HILL	98.81	255.8	13	43	0						
COLLMBERG	103.01	323.9	14	10	8						
LICK	105.48	50.4	14	21K	777						
STUTTGART	106.18	322.4								16	23
BLUE MTS.	106.33	41.9	14	19	777					30	5 PKKP
EUREKA	109.10	46.8	14	34	777					29	41 PKKP
DUGWAY	111.11	45.2	18	40K	4						
RAPID CITY	115.74	37.9	18	42	-3						
GOLDEN	116.50	43.1	18	49	3						
ALBUQUERQUE	117.83	48.3	19	52	63						
RENI ABBES	121.85	307.7	18	56	-1						
MANHATTEN	122.57	39.5	19	0	2						
WICHITA MTS.	123.66	45.0	19	3	3					20	42 PP
DUBUQUE	123.98	33.0	19	4	3						
TULSA	124.95	42.3	19	4	1						
DALLAS	125.91	46.0	19	7	2						
FLORISSANT	126.62	36.2	19	7	1						
ST. LOUIS 1	126.81	36.3	19	8	2						
LITTLE ROCK	127.90	41.4	19	8	0						
BLOOMINGTON	128.56	33.3	19	12	2						
SANTA LUCIA	144.82	153.9	19	38	-1						
SAN JUAN	155.80	31.7	20	8	12						
HUANCAYO	155.81	114.9	19	51	-5						
CHINCHINA	156.30	72.4	20	0	3						
BOGOTA	157.88	72.1	20	4	5						
FUQUENE	157.93	69.7	20	4	5						
CARACAS	161.24	47.4	20	50	48						

SEPTEMBER 18 20.H 11.M 49.S EPICENTRE -20.87 169.76 DEPTH= 100.KM

A=-0.92028 B= 0.16628 C=-0.35417 D= 0.1778 E= 0.9841
G= 0.3485 H=-0.0630 K=-0.9352 HT= 4.5

DEPTH OF FOCUS= 0.011R

SE= 2.29

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
NOUMEA	3.39	244.6	0	50K	-2	1	27	-5				
PORT VILA	3.41	336.3	0	53A	0	1	40	8				
KOUMAC	5.14	272.5	1	16	0							
HONIARA	14.79	318.8	3	26A	1	6	24	17				
ONFRAHI	15.39	165.7	3	46	13							

BRISBANE	16.79	244.0	3	51	1	7	2	9				
KARAPIRO	17.72	164.8	4	1	-1							
TARATA	18.69	168.7	4	15	2							
CHATEAU	18.93	166.0	4	16	0							
APIA	18.96	71.2	4	13K	-3							
TUAI	18.97	162.0	4	16	0	7	56	15				
WELLINGTON	20.79	169.3	4	36	1	8	23	7				
CHARTERS TS.	22.03	267.9	4	50A	3	8	51	12				
CANBERRA	23.23	227.3	5	1A	2				5	19		
RABAUL	23.81	311.7	5	3	-2						9	15
TOOLANGI	26.82	226.4	5	35	2				5	51	8	54 PCP
DARWIN	38.16	276.5	7	11	0							
DUMONT	49.59	195.0	8	41	-2							
SCOTT BASE	57.05	180.8	9	37	-1							
MATUSIRO	64.41	332.1	10	28	0	19	3	6				
BYRD STATION	66.26	169.6	10	38	-2							
HONG KONG	69.16	305.2				20	1	7				
SOUTH POLE	69.26	180.0	10	57	-1							
MAWSON	77.11	202.1	11	43K	-1							
BERKELEY	86.50	47.3	12	31A	-2							
CALISTOGA	86.67	46.5	12	35K	1							
LICK	86.67	48.0	12	35	1							
PRIEST	86.78	49.4	12	36K	2							
PASADENA	87.66	52.2	12	39	0							
MINERAL	88.17	45.4	12	52A	11							
BOULDER CITY	90.92	51.7	12	53	-1							
COLLEGE	91.46	16.7	12	56	0							
EUREKA	91.61	48.2	12	57	0							
BLUE MTS.	93.08	42.9	13	4	0							
PENTICTON	93.71	38.2	13	7A	0							
DUGWAY	94.12	48.5	13	9	0							
ALBUQUERQUE	96.82	55.3	13	23	2							
QUETTA	110.90	295.3	18	24	3							
KEVO	126.23	344.9	18	51	0							
SODANKYLA	128.03	342.9	18	56	1							
TROMSOE	128.15	347.5	18	54	-1							
KIRUNA	129.27	345.5	18	57	0							
KAJAANI	129.96	339.4	18	59	1						22	15 SKP
UMEA	132.45	342.2									22	23 SKP
NURMIJARVI	133.41	337.1	19	6	1						22	26 SKP
UPPSALA	136.31	340.0									22	34 SKP
COLLMBERG	144.60	334.7	19	25K	0							
PRUHONICE	144.94	331.9	19	27	1							
VIENNA-H.	145.31	328.3	19	27	1							
JENA	145.45	335.5	19	28	1						20	23
KASPERSKE H.	146.00	331.7	19	29	1						19	49
ATHENS	146.10	307.7	19	29K	1							
BENSBERG	147.00	339.7	19	31	2							
LJUBLJANA	147.73	326.9	19	34K	4							
STUTTGART	148.07	335.3	19	36	5							
FOLINIERE	151.08	346.6	19	35	0							

SEPTEMBER 19 0.H 7.M 0.S EPICENTRE 41.93 133.13 DEPTH= 456.KM

A=-0.51018 B= 0.54458 C= 0.66569 D= 0.7298 E= 0.6837
G=-0.4551 H= 0.4858 K=-0.7462 HT= -2.4

DEPTH OF FOCUS= 0.067R

SE= 1.87

	DELTA	AZ.	P	O-C	S	O-C	*PP		SUPP.	
	DEG.	DEG.	M	S	S	M	S	S	M	S	M	S
CHANGCHUN	6.05	290.9	1	40	4	3	0	8				
MIZUSAWA	6.70	112.0	1	43	0	3	1	-4				
ABUYAMA	7.30	164.0	1	50A	0							
TUKUBASAN	7.86	134.2	1	52K	-4	3	22	-5				
PEKING	12.96	267.2	2	52K	1	5	10	2				
ZO-SE	14.44	225.4				5	34	-3				
NANKING	15.10	233.9	3	12	-1	5	52	3				
PAOTOW	17.42	273.3	3	37	0							
LANCHOW	23.45	265.2	4	34K	0							
HONG KONG	25.21	224.9				8	34	-8			11	6 SCP
SHILLONG	37.59	257.5	6	45K	9							
LAHORE	47.42	277.3	7	53	-1							
WARSAK DAM	48.28	281.8	8	0	0							
COLLEGE	48.51	34.0	8	1	-1							

QUETTA	53.57	280.1	8 38K	-1	
ALERT	55.59	2.5	8 53A	-1	
KEVO	56.50	336.4	8 59	-1	
SODANKYLA	57.87	334.3	9 8	-1	
KAJAANI	59.29	330.5	9 17	-2	
KIRUNA	59.56	336.0	9 20	-1	
UMEA	62.11	332.5	9 36	-1	
NURMIJARVI	62.52	328.1	9 39	-1	
HELSINKI	62.60	327.7	9 39	-2	
CHARTERS TS.	62.89	166.1	9 40	-2	
SHIRAZ	64.30	287.6	9 50K	-1	
SKALSTUGAN	64.90	334.9	9 54	-1	
UPPSALA	65.64	330.0	10 0	0	
PENTICTON	68.99	42.0	10 20K	0	
HUNGRY HORSE	72.38	40.2	10 40	0	
KSARA	73.12	300.3	10 39	-6	
BLUE MTS.	73.13	44.5	10 45A	0	12 30
COLLMBERG	73.56	325.5	10 47	0	
UKIAH	73.65	52.0	10 48	0	
MINERAL	73.79	50.2	10 49A	1	
CALISTOGA	74.35	52.0	10 52A	0	
BUTTE	74.72	41.2	10 55	1	
BERKELEY	75.05	52.4	10 57K	1	
LICK	75.77	52.5	11 0K	0	
PRIEST	77.16	52.9	11 8A	1	
EUREKA	77.55	47.8	11 10	1	
CANBERRA	78.24	166.8	11 14	1	
DUGWAY	78.76	45.5	11 16A	0	
PASADENA	80.00	52.9	11 22	0	
FLAMING GRGE	80.01	43.0	11 23	1	
BOULDER CITY	80.66	49.6	11 26	0	
GLEN CANYON	81.75	47.0	11 32	1	
GOLDEN	82.95	41.5	11 38	1	
TUCSON	85.64	49.8	11 52	1	
ALBUQUERQUE	86.02	45.2	11 54	2	
DUBUQUE	87.13	30.8	11 59	1	
MANHATTEN	87.47	36.4	11 59	0	
KARAPIRO	88.38	147.8	12 5	1	
TUAI	89.78	147.1	12 10	0	
WICHITA MTS.	90.19	40.3	12 13	1	
FLORISSANT	90.43	32.5	12 13	0	
ROLLA	90.57	34.0	12 14A	0	

SEPTEMBER 19 1.H 22.M 40.5 EPICENTRE 52.25-173.30 DEPTH= 71.KM

A=-0.61057 B=-0.07168 C= 0.78871 D=-0.1166 E= 0.9932
G=-0.7833 H=-0.0920 K=-0.6148 HT= -6.2

DEPTH OF FOCUS= 0.006R

SE= 1.56

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
COLLEGE	18.17	36.1	4 8	0				
VICTORIA	31.52	76.6	6 18	1				
MOULD BAY	31.53	21.7	6 17A	0				9 7 PCP
LONGMIRE	33.30	78.6	6 32A	0				
PENTICTON	33.42	73.2	6 34A	1				
UKIAH	36.63	90.7	7 2	1				
MINERAL	36.89	87.8	7 4K	1				
BLUE MTS.	36.97	78.7	7 5	1				9 23 PCP
HUNGRY HORSE	37.14	71.7	7 5	U				
MATUSIRO	37.28	264.6	7 6	U				9 24 PCP
CALISTOGA	37.32	90.8	7 8A	1				9 25
BERKELEY	38.00	91.5			13 4 4			16 2
RENO	38.47	87.5	7 18K	2				
LICK	38.72	91.7	7 20K	2				
BUTTE	39.18	74.2	7 22	0				9 32 PP
PRIEST	40.09	92.4	7 30A	0				9 34
BOZEMAN	40.27	73.8	7 31	0				
EUREKA	40.86	84.8	7 37	1				
ALERT	41.15	10.8	7 40	2				
DUGWAY	42.36	81.7	7 49A	1				
SALT LAKE C.	42.59	80.3	7 51	1				9 43 PP
PASADENA	42.93	92.6	7 53	U				

BOULDER CITY	43.78	87.9	7	59	-1						
PRICE	43.93	81.0	8	2A	1						
FLAMING GRGE	43.98	78.5	8	1	0	13	32	-56		9	47 PP
GLEN CANYON	45.12	84.4	8	12	1						
RAPID CITY	45.77	71.0	8	16	0						
LARAMIE	46.03	75.6	8	18	0						
GOLDEN	47.16	77.2	8	27	0						
TUCSON	48.73	88.7	8	40	1					10	4 PP
ALBUQUERQUE	49.58	82.8	8	45	0					10	7 PCP
MANHATTEN	52.69	72.0	9	7	-4						
LAWRENCE	53.62	71.3	9	19	3						
DUBUQUE	53.89	65.2	9	16	-4						
WICHITA MTS.	54.50	77.4	9	22	0	16	57	3	9 36	11	20 PP
TULSA	55.36	74.5	9	28	0						
FAYETTEVILLE	56.18	73.2	9	33A	-1						
ROLLA	56.28	70.1	9	32	-3						
FLORISSANT	56.55	68.3	9	34	-3						
DALLAS	56.88	77.8	9	39	0						
SCHEFFERVLLE	57.18	41.3	9	39	-2						
KEVO	57.40	351.8	9	43	0						
TROMSOE	58.10	355.0	9	48	0						
LITTLE ROCK	58.17	73.1	9	47	-1						
BLOOMINGTON	58.47	65.6	9	49	-1						
SODANKYLA	59.76	351.2	9	59	0						
KIRUNA	59.80	354.0	9	58	-2						
BREBEUF	60.79	52.6	10	4K	-2						
MORGANTOWN	61.75	61.1	10	13K	0						
KAJAANI	62.86	349.8	10	20	0						
UMEA	63.78	353.4	10	26	0						
PALISADES	63.92	56.2	10	28	1						
SKALSTUGAN	64.43	357.2	10	31	0						
NURMIJARVI	66.67	350.4	10	45	0						
UPPSALA	67.90	354.1	10	51	-2						
NHATRANG	72.78	267.7	11	22	0						
COLLMBERG	76.69	355.9	11	45	0						
JENA	77.11	356.8	11	55	8						
PRUHONICE	77.93	354.8	11	52	1						
KASPERSKE H.	78.83	355.4	11	55	-1						
STUTTGART	79.33	358.3	12	0	1						
CHARTERS TS.	80.18	218.2	12	3A	-1						
QUETTA	82.51	310.7	12	16	0				12 26		
SAN JUAN	85.72	65.5	12	33	1						
SHIRAZ	89.13	321.4	12	49	1						
KARAPIRO	90.33	188.8	12	53	-1				13 8		
LWIRO	126.86	332.0	18	58K	3						
BYRD STATION	135.50	168.4	19	0	-12						
MAWSON	149.27	218.6	19	40	4				19 50		
WINDHOEK	149.30	340.9	19	38	2						
KIMBERLEY	152.94	323.2	19	8	-33						

SEPTEMBER 19 1.H 42.M 18.S EPICENTRE 7.42 -82.27 DEPTH= 55.KM

A= 0.13333 B=-0.98274 C= 0.12821 D=-0.9909 E=-0.1344
G= 0.0172 H=-0.1270 K=-0.9917 HT= 6.8

DEPTH OF FOCUS= 0.003R

SE= 2.90

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
BALBOA HTS.	3.09	60.1				0	47	-37				
CHINCHINA	7.05	109.8	1	43A	0							
GALERAZAMBA	7.68	63.7	1	48	-4							
BOGOTA	8.62	108.3	2	7	2	3	4	-38	2	13		
CARACAS	15.46	77.4	3	39A	3	6	24	-2				
SAN JUAN	19.13	53.7	4	20	-1	8	1	12				
HUANCAYO	20.53	160.3	4	36	0							
TRINIDAD	20.86	79.6	4	38A	-2	8	34	10				
FORT FRANCE	21.95	68.9	4	56	5	9	3	18				
AREQUIPA	26.01	155.8	5	30	0							
LITTLE ROCK	28.77	342.6	5	53	-2							
WICHITA MTS.	31.05	333.3	6	12	-3				6	20	7	12 PP
ROLLA	31.58	345.4	6	17K	-3							
BLOOMINGTON	31.86	353.8	6	20	-2							
FLORISSANT	32.09	348.0	6	21	-3							

LAWRENCE	33.52	341.5	6 33	-4		
ALBUQUERQUE	35.29	324.4	6 52	0		
TUCSON	36.27	316.8	7 2	2		
GOLDEN	38.24	330.7	7 16	-1	7 24	
GLEN CANYON	39.71	322.1	7 31	2		
BOULDER CITY	41.15	318.4	7 41	0		
FLAMING GRGE	41.19	328.4	7 41	0		
SALT LAKE C.	42.40	326.2	7 52	1		9 46 PP
PASADENA	42.45	313.9	7 54	3		
DUGWAY	42.55	324.9	7 53A	1		
EUREKA	43.96	321.8	8 4	0		
PRIEST	45.21	314.9	8 16A	2		
BOZEMAN	45.50	331.8	8 18	2		9 54 PP
RENO	46.42	319.4	8 25	2		
BUTTE	46.48	331.0	8 23	-1		9 58 PP
LICK	46.49	315.8	8 25	1		
BERKELEY	47.18	316.1	8 38A	9		
CALISTOGA	47.78	316.8	8 34A	0		
MINERAL	48.01	319.3	8 25A	-11		
BLUE MTS.	48.11	326.7	8 35	-1		10 4 PCP
LONGMIRE	51.75	326.1	9 4	0		
MOULD BAY	71.70	351.3	11 17	-1		
COLLEGE	73.07	336.0	11 26	0		
MALAGA	75.89	54.1	11 44K	1		
TOLEDO	76.25	50.9	11 47	2		
FOLINIERE	79.06	41.8	11 58	-2		
BENSBERG	83.95	39.5	12 27	1		
SKALSTUGAN	85.44	26.6	12 33	0		
STUTTGART	85.51	41.6	12 34	1		
JENA	86.73	39.2	12 39	0		
COLLMBERG	87.56	38.7	12 44K	1		
KIRUNA	87.95	21.7	12 45	0		
KASPERSKE H.	88.27	40.8	12 46	-1		
PRUHONICE	88.75	39.9	12 50	1		
UMEA	88.88	25.7	12 50	0		
BYRD STATION	89.34	186.1	12 44	-8		
CHARTERS TS.	131.38	249.8	19 8	1		
QUETTA	132.35	36.8	19 10	2		
MUNDARING	150.11	212.7	19 40	0		

SEPTEMBER 19 5.H 7.M 41.S EPICENTRE 48.07 145.05 DEPTH= 489.KM

A=-0.54980 B= 0.38421 C= 0.74169 D= 0.5728 E= 0.8197
G=-0.6080 H= 0.4248 K=-0.6707 HT= -4.7

DEPTH OF FOCUS= 0.072R

SE= 0.98

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
Y.-SAKHLINSK	1.90	237.3	1 5	1	1 55	0		
UGLEGORSK	2.23	298.2	1 7	1	2 1	3		
MIZUSAWA	9.37	199.1	2 10	-2	3 54	-3		
PETROPAVLOVK	9.97	55.1	2 17	-2				4 3
TUKUBASAN	12.39	199.0	2 42K	-2	4 53	-2		
MATUSIRO	12.58	206.2	2 45	-1	5 0	1		
YAKUTSK	16.44	333.9	3 25K	0	6 14	3		
COLLEGE	38.56	39.1	6 40	-1				
MOULD BAY	45.22	19.6	7 33K	-1				
ALMATA-2	46.16	290.5	7 43	2				
NHATRANG	46.56	232.0	7 45	1				
ALERT	48.94	4.6	8 1K	-1				
SVERDLOVSK	49.05	313.6	8 3	0				
NORD	50.21	356.6	8 11K	-1				
RESOLUTE	51.27	17.2	8 18	-1				
APATITY	53.85	333.8	8 37A	-1				
KEVO	54.16	337.7	8 39	-1				
SODANKYLA	55.92	335.7	8 52K	0				
TROMSOE	56.20	340.1	8 53	-1				
KIRUNA	57.21	338.2	9 1K	0				
KAJAANI	57.94	332.6	9 5K	-1				
PENTICTON	58.66	49.7	9 11K	0				
LONGMIRE	59.12	53.1	9 13K	-1				
UMEA	60.34	335.2	9 22K	0			11 2	
NURMIJARVI	61.53	331.0	9 29	-1				
HELSINKI	61.69	330.6	9 30	-1				

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HUNGRY HORSE	62.11	47.8	9	33	-1					
SKALSTUGAN	62.64	338.3	9	36	-1					
BLUE MTS.	62.75	52.5	9	38K	0	11	19			
MINERAL	63.36	58.6	10	1K	19					
UPPSALA	64.25	333.6	9	47K	-1	11	29	10	16	
BUTTE	64.42	49.0	9	49	0			10	19	PCP
TIFLIS	66.28	306.4	10	2	2					
BERGEN	67.07	339.6	10	5	0					
EUREKA	67.13	56.1	10	5	-1					
CHARTERS TS.	67.85	178.8	10	9	-1					
KARLSKRONA	67.90	332.2	10	8	-2					
DUGWAY	68.36	53.7	10	14K	1					
PASADENA	69.59	61.5	10	20	0					
FLAMING GRGE	69.65	51.1	10	21	0					
PRICE	69.85	52.9	10	23K	1					
RAPID CITY	70.42	45.3	10	26	1					
GLEN CANYON	71.34	55.3	10	31	0					
GOLDEN	72.63	49.6	10	39	1					
COLLMBERG	72.83	330.8	10	39K	0			13	31	PP
PRAGUE	73.40	329.3	10	45	2					
PRUHONICE	73.43	329.2	10	44K	1	12	28			
JENA	73.61	331.4	10	45	1					
KASPERSKE H.	74.49	329.3	10	50	1	12	34			
BENSBERG	74.94	333.9	10	51	0					
TUCSON	75.21	58.2	10	54	1					
ALBUQUERQUE	75.63	53.5	10	56	1					
STUTTGART	76.22	331.6	10	59	1					
KEW	76.50	338.6	11	0	0					
DUBUQUE	77.29	38.8	11	4A	0					
MANHATTEN	77.34	44.5	11	4	0					
FOLINIERE	79.03	337.6	11	14	1					
WICHITA MTS.	79.91	48.6	11	18	0	13	7			
TULSA	80.34	46.0	11	21	1					
FLORISSANT	80.48	40.7	11	21	0					
ROLLA	80.54	42.2	11	21K	0					
LITTLE ROCK	82.89	44.3	11	34	1					
CANBERRA	83.09	176.8	11	35A	1			11	41	PCP
KARAPIRO	89.82	156.3	12	7	1					
BYRD STATION	137.85	165.0	18	12	-16					

SEPTEMBER 19 7.H 28.M 43.5 EPICENTRE 30.14 50.40 DEPTH= 62.KM

A= 0.55213 B= 0.66751 C= 0.49959 D= 0.7706 E=-0.6374
G= 0.3184 H= 0.3850 K=-0.8663 HT= 1.8

DEPTH OF FOCUS= 0.005R

SE= 1.71

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SHIRAZ	1.90	104.4	0	31A	-1	0	52	-3			11	54	PCS
TEHERAN	5.65	8.2	1	32	8	2	58	30					
GORIS	9.92	341.4	2	24	1								
VANNOVSKAYA	10.07	37.3	2	22	-3								
ASHKABAD	10.20	38.1	2	26	-1								
KIZYL-ARVAT	10.24	26.5	2	25	-2	4	25	4					
KIROVOBAD	11.00	343.5	2	37	0								
TIFLIS	12.41	340.1	2	57	1	5	32	18					
KSARA	12.86	290.3	3	4	2	5	26	2			5	40	SS
JERUSALEM	13.14	281.0	3	2K	-4								
QUETTA	14.32	85.7	3	22	1	6	1	2					
KARACHI	15.68	105.7	3	38	-1								
SOTCHI	15.89	330.5	3	40	-1								
WARSAK DAM	18.33	72.4	4	10	-2								
TASHKENT	18.91	48.7	4	20K	1	7	54	10					
KHOROG	19.00	61.7	4	19	-1	7	56	10					
SIMFEROPOL	19.57	323.5	4	25	-1								
ISTANBUL UN.	20.48	307.9	4	36	1								
LAHORE	20.59	80.0	4	36	-1								
ANDIJAN	20.74	53.4	4	37A	-1								
NEW DELHI	23.39	87.1	5	5A	1	9	17	8					
ATHENS	23.39	296.6	5	6A	2	9	18	9					
KISHINEV	23.72	321.3	5	9K	1	9	23	8					
DEHRA DUN	23.87	82.6	5	11	2	9	35	17					
ALMATA-2	25.15	51.2	5	24A	3								
MOSCOW	27.14	344.1	5	40	0								

SVERDLOVSK	27.63	12.1	5 44	0				
LWOW	27.95	322.1	5 48	1			10 30	
UZHGOROD	28.27	318.7	5 48	-2				
BUDAPEST	29.69	314.5	6 2	-1	10 32	-21	20 59	
VIENNA-H.	31.63	314.5	6 21	1				
AQUILA	31.99	302.6					12 7	
LJUBLJANA	32.08	309.8	6 23A	-1				
PRUHONICE	33.40	316.6	6 35	0				
KASPERSKE H.	33.68	314.8	6 36	-1			7 43	
FLORENCE X.	33.80	304.7					17 18	
COLLMBERG	34.83	318.1	6 47	0				
NURMIJARVI	34.89	337.9	6 46	-2				
STUTTGART	36.26	312.6					12 45	
SHILLONG	36.80	86.8	7 4A	0				
KAJAANI	36.87	343.6	7 4	-1			8 22	PP
UPPSALA	36.97	333.0	7 5	0				
LWIRO	38.25	216.5	7 18	2				
UMEA	38.74	339.1	7 20	0				
APATITY	38.79	349.7	7 20A	-1			8 50	
SODANKYLA	39.87	345.9	7 30	0			9 3	PP
GARCHY	40.04	308.9	7 31	0				
SKALSTUGAN	41.26	335.2	7 40	-1				
KIRUNA	41.67	343.4	7 44	0				
KEVO	41.84	348.0	7 46	0			9 25	PP
TROMSOE	43.39	344.6	8 0	1				
BENI ABBES	45.13	283.8	8 13	1				
YAKUTSK	58.92	32.8	9 54	-1				
ALERT	63.19	352.2	10 24	0				
MOULD BAY	73.69	357.5	11 31	2				
COLLEGE	84.24	7.7	12 27	0				
BLUE MTS.	104.53	351.0	17 38	218			18 17	PP
WICHITA MTS.	109.17	333.3	18 23	777			18 57	PP

SEPTEMBER 19 7.H 48.M 38.S EPICENTRE 11.78 140.91 DEPTH= 77.KM

A=-0.76008 B= 0.61739 C= 0.20276 D= 0.6305 E= 0.7762
G=-0.1574 H= 0.1278 K=-0.9792 HT= 6.3

DEPTH OF FOCUS= 0.007R

SE= 2.22

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
GUAM	4.09	65.4	1	1	-1	1	52	3				
RABAUL	19.42	144.2	4	18	-4						7	54
MANILA	19.52	280.7	4	24	0	7	4	-50				
BAGUIO CITY	20.25	285.5	4	31	0	8	28	19				
ABUYAMA	23.50	348.9	5	4A	1							
MATUSIRO	24.78	354.8	5	14K	-2	9	36	6				
DARWIN	26.00	203.0	5	25	-2							
ZO-SE	26.51	319.5	5	32	0							
HONG KONG	27.58	295.8	5	43	1	10	41	25				
NHATRANG	31.01	274.2	6	12	0							
CHARTERS TS.	32.10	170.5	6	20	-2							
PEKING	35.63	326.5	6	53A	1							
SIAN	36.72	312.8	7	3	2							
CHENGTU	38.96	304.6	7	21A	1							
KOUMAC	39.50	144.3	7	28K	4							
PAOTOW	39.51	322.1	7	27A	2							
BRISBANE	40.60	163.7	7	32	-2						8	18
LANCHOW	41.25	312.2	7	41	2							
NOUMEA	42.12	143.5	7	52A	6							
ADELAIDE	46.53	182.5	8	21	0							
CANBERRA	47.46	171.0	8	27K	-2				8	39	9	57 PCP
SHILLONG	48.18	293.8	8	37A	3							
TOOLANGI	49.27	175.2	8	42	-1						10	10 PCP
MUNDARING	49.51	207.8	8	43	-2							
KIPAPA	59.00	72.1	9	53	-1							
KARAPIRO	59.13	148.4	9	59	4							
TUAI	60.62	148.0	10	8	3							
DEHRA DUN	60.79	298.2	10	7	1							
WELLINGTON	61.34	151.4	10	18	8							
NEW DELHI	61.45	296.1	10	9A	-2							
LAHORE	64.04	299.4	10	27	-1							
POONA	64.78	285.0	10	33K	0							
WARSAK DAM	66.45	302.0	10	44A	1							

QUETTA	70.39	297.9	11	8A	0				11	22		
COLLEGE	71.48	25.2	11	12	-2							
DUMONT	78.23	180.4	11	50	-3							
MOULD BAY	80.96	13.8	12	7A	0							
SHIRAZ	82.90	298.7	12	18K	1							
ALERT	85.27	3.0	12	30	1							
APATITY	85.74	338.4	12	30A	-2							
LONGMIRE	86.45	43.1	12	35	0							
KEVO	87.02	341.4	12	37	-1							
PENTICTON	87.25	40.3	12	39A	0							
CALISTOGA	87.75	51.1	12	36K	-5							
MINERAL	88.09	49.3	12	43A	0							
BERKELEY	88.18	51.8	12	45K	2							
SODANKYLA	88.22	339.3	12	43K	-1							
LICK	88.78	52.2	12	47A	1							
KAJAANI	89.28	336.2	12	47	-2							
RENO	89.63	49.7	12	52A	2							
PRIEST	89.83	53.2	12	53K	2							
BLUE MTS.	89.98	44.1	12	52	0							
KIRUNA	90.05	340.9	12	51	-1							
SCOTT BASE	90.66	174.7	12	51	-4							
HUNGRY HORSE	91.07	40.1	12	57	0							
NURMIJARVI	92.18	333.6	13	1	-1							
HELSINKI	92.21	333.3	13	1	-1							
UMEA	92.29	337.6	13	0	-3							
PASADENA	92.32	54.6	13	3	0							
EUREKA	92.50	49.0	13	4	0							
BUTTE	92.78	42.0	13	5	0							
DUGWAY	94.58	47.5	13	14A	1							
SALT LAKE C.	95.08	46.7	13	17	2							
MAWSON	96.28	202.2	13	20K	-1				13	38		
FLAMING GRGE	96.76	45.9	13	22	-1							
ALBUQUERQUE	101.18	50.6	13	44	1						17	52 PP
WICHITA MTS.	107.12	48.0									18	36 PP
PALISADES	118.41	29.4				25	51	26				
HUANCAYO	144.55	94.3	19	31	3							
CARACAS	144.57	52.4	19	28K	0							
AREQUIPA	148.25	102.2	19	38	4							
TRINIDAD	148.57	45.7	19	41	7							

SEPTEMBER 22 6.H 51.M 28.S EPICENTRE 26.48 96.82 DEPTH= 0.KM

A=-0.10645 B= 0.88993 C= 0.44350 D= 0.9929 E= 0.1188
G=-0.0527 H= 0.4404 K=-0.8963 HT= 2.9

SE= 2.84

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SHILLONG	4.55	259.6	1	14K	2	2	14	8			1	19 PP
KUNMING	5.50	103.0	1	26	0	2	22	-9			1	42 PG
LHASA	6.00	303.0	1	37K	4							
CHITTAGONG	6.13	229.1	1	34K	0							
CHENGTU	7.57	55.0	1	55	0	3	22	0				
CHATRA	8.64	274.5	2	10	0	3	46	-3			2	22 PPP
CALCUTTA	8.64	244.7	2	9K	-1	3	46	-3				
ROKARO	10.33	257.6	2	33	0	4	31	0			2	49 PPP
LANCHOW	11.26	30.4	2	45A	-1	4	57	4				
SIAN	12.99	50.5	3	5	-4	5	32	-4				
PORT BLAIR	15.23	195.5	3	41A	3	6	38	9			4	3 PPP
VISHAKHAPTNM	15.25	237.9	3	37K	-2	6	45	16			3	47 PP
CANTON	15.38	99.1	3	45A	5	6	42	10				
HONG KONG	16.34	101.0	3	51	-2	6	54	-1			8	38
DEHRA DUN	16.95	287.4	3	58	-2	6	56	-13			4	26 PPP
NEW DELHI	17.53	281.3	4	3K	-5	7	3	-19			4	32 PPP
PAOTOW	17.83	34.6	4	9	-2	7	24	-5				
SEHORE	18.22	263.8	4	17	1	7	36	-2			4	29 PP
HYDERABAD	19.26	245.8	4	23A	-6	7	59	-2				
NANKING	19.93	68.6	4	34A	-3	8	17	1				
MADRAS	20.59	232.5	4	42K	-2	8	31	2			5	3 PP
PEKING	21.02	45.2	4	46A	-2	8	39	1				
TAINAN	21.53	94.2	4	56	3							
KAOSIUNG	21.67	95.2									6	9
TAICHUNG	21.69	90.9	4	53	-2							
ZO-SE	21.82	72.1	4	54A	-2	8	53	0				
HSINCHU	21.83	89.1									5	29

ALISHAN	21.92	92.5	4	58	1							13	7	
HENGCHUN	22.26	96.4	5	10	10							11	52	
TAIPEI	22.29	88.3	5	5K	4									
TAWU	22.30	95.4	5	4	3									
TAITUNG	22.42	94.3	5	6	4	9	19	15						
HSINKONG	22.53	93.3	5	9	6									
HWALIEN	22.57	90.9	5	12	9							12	8	
POONA	22.62	254.3	5	4K	0	9	10	2				5	33	PP
ULAN-BATOR	22.82	17.7	5	6A	0	9	16	5						
WARSAK DAM	23.04	295.0	5	11K	3	9	23	7						
BOMBAY	23.37	256.1	5	13	2	9	26	5				5	47	PP
KHOROG	24.02	303.4	5	21	3							6	12	PPP
FRUNSE	24.37	317.7	5	26A	5	9	47	8						
KODAIKANAL	24.41	232.1	5	23	2	9	41	2				6	11	PPP
MANILA	25.52	112.6	5	32	0							10	18	
IRKUTSK	26.37	10.4	5	41	1							11	56	SSS
DUZHANBE	26.44	304.1	5	40	-1	10	15	2						
QUETTA	26.51	285.0	5	43K	2	10	17	3	5	52		6	26	PP
SEMIPALATNSK	27.06	336.3	5	44A	-2	10	24	1						
VLADIVOSTOK	32.95	50.7				11	55	-2				7	45	PP
DJAKARTA	33.89	161.9	6	46	-1	12	2	-9						
ABUYAMA	34.19	66.3	6	46A	-4									
ASHKABAD	34.28	299.2	6	52	2	12	23	6				8	41	PPP
LEMBANG	34.73	160.9	6	52	-2							17	0	
MATUSIRO	36.44	63.7	7	4A	-5	12	47	-4						
TUKUBASAN	37.95	64.4	7	15A	-6	13	1	-13	7	29		8	53	PP
MIZUSAWA	38.96	59.8	7	28	-2	13	27	-2						
SHIRAZ	39.04	285.2	7	31K	0	13	29	-1				9	4	PP
TEHERAN	39.68	294.8	7	36	0	13	28	-12				13	42	
SVERDLOVSK	39.82	329.5	7	39K	2	13	43	1				9	16	PP
Y.-SAKHLINSK	41.39	48.0	7	48A	-2	14	0	-6				13	33	PCS
GORIS	43.77	300.3	8	10K	1	14	45	5				10	1	PP
KIROVOBAD	43.81	302.0	8	11K	1	14	40	-1				10	3	PP
TIFLIS	45.01	303.5	8	21A	2	15	2	4				10	17	PP
MAGADAN	49.45	32.8	8	53	-1	16	0	-1				10	56	PP
MOSCOW	51.29	321.5	9	9A	1	16	24	-3				11	6	PP
PETROPAVLOVK	52.48	42.2	9	14	-3							11	12	PP
KSARA	52.55	293.6	9	19	1	16	47	3				10	26	PCP
SIMFEROPOL	52.83	307.6	9	20K	0	16	49	1				11	21	PP
JERUSALEM	53.45	291.2	9	25	1							10	27	PCP
APATITY	55.69	335.4	9	40A	-1	17	28	2				11	46	PP
PULKOVO	55.71	325.8	9	41A	0	17	28	1				11	50	PP
KAJAANI	57.40	330.8	9	53	0	17	50	1						
SODANKYLA	58.23	334.6	9	58	-1	18	2	2				12	8	PP
HELSINKI	58.42	326.1	9	59	-1									
KEVO	58.44	337.5	10	0	0	18	4	1				13	28	PPP
NURMIJARVI	58.58	326.5	10	1A	0	18	5	0				12	9	PP
PORT MORESBY	60.49	119.2	10	13K	-1	18	31	2						
KIRUNA	60.64	335.0	10	15	0	18	31	0				13	55	
UMEA	60.68	330.3	10	15	-1	18	34	2						
PERTH	60.87	161.5				18	40	6				11	2	
WARSAW	60.99	317.0				18	38	2				18	47	PS
MUNDARING	61.00	161.2	10	16A	-2									
TROMSOE	61.23	337.0	10	20	1									
RABAUL	61.58	111.1	10	20	-2	18	46	3						
TIMISOARA	61.79	309.7	10	16	-7	18	36	-10						
KRAKOW	61.96	314.7	10	24	0	18	47	-1				12	47	PP
UPPSALA	62.12	325.9	10	24K	-1	18	49	-1				20	14	SCS
BELGRADE	62.49	308.8	10	27K	-1	18	57	2				14	26	PPP
BUDAPEST	62.98	311.9										19	1	
RACIBORZ	63.06	314.9	10	32	0	19	3	1				12	59	PP
TITOGRAD	63.83	306.3	10	37	0	19	10	-1				11	10	PCP
BRATISLAVA	64.12	312.9	10	38	-1	19	14	-1				13	4	PP
SKALSTUGAN	64.23	330.4	10	39	0	19	19	3						
VIENNA-H.	64.58	313.1	10	43A	1	19	23	2						
GOTEBORG	65.33	324.0	10	45	-1									
ZAGREB	65.37	310.6	10	44	-3	19	32	2						
PRUHONICE	65.39	315.3	10	47A	0	19	28	-3				13	12	PP
PRAGUE	65.44	315.4	10	47	0	19	32	1				14	54	PPP
COPENHAGEN	65.46	321.7	10	48	1	19	34	2						
TANANARIVE	65.75	231.9	10	49A	0									
COLLMBERG	66.06	316.9				19	39	0						
KONGSBERG	66.15	326.3	10	51A	-1	19	35	-5				13	15	PP
KASPERSKE H.	66.19	314.5	10	46	-6	19	42	1				13	15	PP
LJUBLJANA	66.30	311.1	10	53	0	19	38	-4				13	37	PP
CHARTERS TS.	66.65	128.9	10	53	-2	19	45	-1						
HALLE	66.66	317.3	10	56	1	19	46	0						
CHEB	66.73	315.7	11	6	11	19	52	5				15	32	

JENA	67.02	316.8	10	57	0	19	50	-1			13	22 PP
MESSINA	67.65	302.6	11	0A	-1	19	54	-4			13	36 PP
BERGEN	68.09	327.7	11	5	1	20	4	1				
PADOVA	68.26	310.9	11	13	8	20	6	1			21	6 SCS
ROME	68.83	307.2	10	58	-11	20	11	-1			24	32 SS
STUTTGART	69.02	314.9	11	11A	1	20	17	3			28	17 SSS
FLORENCE X.	69.15	309.4	11	10	-1	20	9	-7			24	32 SS
HEIDELBERG	69.20	315.7	11	11	0							
TUBINGEN	69.22	314.7	11	12	1							
EBINGEN	69.39	314.4	11	12	0							
CHUR	69.41	312.9	11	12	0	20	16	-3				
WITTEVEEN	69.45	319.6	11	15K	3							
BENSBERG	69.70	317.6	11	14	0						13	57 PP
STRASBOURG	70.03	315.1	11	17	1	20	28	2			14	4 PP
PAVIA	70.15	311.3	11	32	15						20	28
DE BILT	70.53	319.2	11	26	7	20	32	0			25	9 SS
ALERT	70.78	357.2	11	20A	-1	20	36	1				
HONIARA	70.88	111.3	11	22	1	20	37	1				
LWIRO	71.46	257.8	11	23K	-2							
DOURBES	71.52	317.3	11	26	1	20	46	2				
BESANCON	71.60	314.1	11	25	0							
MONACO	71.80	310.3	11	26	-1	21	2	15				
ABERDEEN	72.77	325.7				20	56	-2			25	36 SS
ADELAIDE	72.85	145.0	11	31A	-2	21	0	1	11	39	11	45 PCP
PARIS	73.26	316.5	11	36A	1	21	6	2			12	6
DURHAM	73.41	323.3	11	39A	3	21	8	3			12	10 PCP
GARCHY	73.45	314.9	11	36	0	21	4	-2			12	33
KEW	73.96	319.8	11	40	1	21	12	1			14	29 PP
CLERMONT-FD.	73.96	313.4	11	40A	1	21	14	3				
MOULD BAY	75.09	8.4	11	44A	-2	21	22	-2				
FOLINIERE	75.10	317.2	11	46	0							
BRISBANE	75.93	130.6	11	51A	0	21	36	3				
COLLEGE	76.28	23.4	11	51	-2	21	34	-3				
SIDA	76.71	335.5	11	57A	2							
THULE	76.92	356.4	11	55	-1							
BAGNERES	76.97	311.7	11	57	0						12	19
BANGUI	77.50	268.7	11	58	-1	21	46	-4				
TORTOSA	77.65	309.4	12	1	1	21	50	-2				
BROKEN HILL	77.86	247.1	12	1K	0							
TOOLANGI	78.40	142.5	12	4A	0						12	11 PCP
RESOLUTE	78.80	3.2	12	8A	1							
CANBERRA	78.80	138.8	12	6A	-1							
RIVERVIEW	79.09	136.5	12	7A	-1	22	5	-2				
KOUMAC	80.38	118.6	12	14A	-1							
BULAWAYO	80.75	242.1	12	16A	-1							
TOLEDO	81.19	310.1	12	20K	1	22	30	1			15	28 PP
CHANGALANE	81.41	235.1	12	20A	-1							
ALMERIA	81.45	306.8	12	20A	-1	22	30	-2			15	28 PP
GRANADA	82.10	307.5	12	43A	19	22	43	4			15	16 PP
MALAGA	82.88	307.4	12	18	-10	22	48	1			23	48 PS
NOUMEA	83.01	119.0	12	30A	1							
SERRA PILAR	83.65	312.9	12	33K	1						15	48 PP
COIMBRA	84.00	312.0	12	35K	1						15	49 PP
BENI ABBES	84.26	300.7	12	35	0	21	55	-65			15	46 PP
KIMBERLEY	88.26	236.7	12	54A	-1							
BANDEIRA	90.88	253.9	13	6	-1							
MIRNY	92.78	181.5	13	13	-3	23	47	-32			21	40 SKKS
WILKES	93.12	174.5	13	14	-3						30	40 SS
SCHEFFERVLLE	97.81	350.5	13	40	1							
PENTICTON	97.84	23.1	13	38	-1							
DUMONT	98.43	164.0	13	39	-3						17	22 PP
WELLINGTON	98.65	131.8									31	56 SS
HUNGRY HORSE	100.54	20.4	13	51	0							
BLUE MTS.	102.47	24.1	13	58	-2						18	13 PP
BUTTE	103.07	20.6	18	7	245							
MINERAL	104.52	29.4									16	56
CALISTOGA	105.46	31.0	18	37A	777						19	12
BERKELEY	106.23	31.3				24	54	-2			18	50 PP
LICK	106.95	31.2									20	32
EUREKA	107.59	26.1	14	28	777						29	57 PKKP
BREBEUF	107.84	353.0				25	2	-1			34	2 SS
DUGWAY	108.15	23.5	18	23K	777							
PRIEST	108.38	31.3	18	39A	777						19	14
FLAMING GRGE	108.65	20.7	14	32	777							
LARAMIE	109.43	17.7									18	17 PP
CAPE HALLETT	110.12	161.8	18	38	4							
GOLDEN	110.98	18.2	18	36	0	25	17	0				
BOULDER CITY	111.07	27.1	17	39	-57							
PASADENA	111.17	30.7									19	12 PP

PALISADES	112.30	352.4			25 21	-1				
ALBUQUERQUE	115.05	21.0	18 52	9						
TULSA	116.61	11.5	18 47	0	25 35	-4			19 54	PP
FAYETTEVILLE	116.90	10.0	18 47	0					28 1	
WICHITA MTS.	117.41	14.3	18 48	0					19 53	PP
HOPE	135.35	351.3							21 24	
TRINIDAD	137.45	327.4	19 29	3					23 0	
CARACAS	139.99	334.7	19 51	20					23 5	PP
BOGOTA	147.85	342.8	19 48	4					30 6	SKKS
CHINCHINA	147.89	345.7	19 46	4						
HUANCAYO	163.85	331.3	20 10	5						

SEPTEMBER 23 12.H 2.M 38.S EPICENTRE 14.95 -45.24 DEPTH= 41.KM

A= 0.66058 B=-0.68638 C= 0.25630 D=-0.7101 E=-0.7041
G= 0.1805 H=-0.1820 K=-0.9666 HT= 5.8

DEPTH OF FOCUS= 0.001R

SE= 2.47

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
TRINIDAD	16.32	256.7	3 46	-1				
ST. KITTS	16.97	280.4	3 57	2				
CARACAS	21.61	260.7	4 49K	1	8 42	2		
M.BOUR	27.35	87.5	5 46	3				
PALISADES	35.97	321.8			12 41	8		9 9 PCP
LA PAZ	38.56	216.8	7 19	-1	13 16	3		
BREBEUF	38.71	327.7	7 23	2				
SHAWINIGAN	39.01	329.6	7 25	1				
HUANCAYO	40.09	229.6	7 32	-1				
AREQUIPA	40.56	220.7	7 34	-3				
MALAGA	42.26	51.4	7 54	3	14 18	10		
BENI ABBES	42.28	61.6	7 50	-1				
BLOOMINGTON	43.45	311.8			14 42	17		
TOLEDO	43.66	47.2	7 57	-5				12 22
FLORISSANT	46.15	309.8	8 23	1	15 53	49		
ROLLA	47.03	308.2	8 20	-9				
DUBUQUE	47.62	314.5	8 35	2	15 37	12		
FAYETTEVILLE	48.36	305.2	8 40	1				
TULSA	49.59	304.6	8 49	0				
FOLINIERE	49.74	37.6	8 49	-1				
CLERMONT-FD.	50.76	42.5	8 41	-7				
MANHATTEN	50.91	308.6			16 13	2		
GARCHY	51.29	40.7	9 1	-1				
PARIS	51.53	38.7	9 4	1				
WICHITA MTS.	51.64	302.6	9 3	-1	16 34	13		20 12 SS
STRASBOURG	54.70	40.5	9 27	0				
BENSBERG	55.15	37.6	9 29	-1				
STUTTGART	55.71	40.7	9 32	-2				
ROME	56.23	49.4						11 52 PP
AQUILA	56.98	49.0	9 44	1	17 44	11		21 50 SS
MESSINA	58.03	54.2						24 18
KASPERSKE H.	58.54	41.2	9 52	-2				10 27
COLLMBERG	58.74	38.6	9 54A	-2				11 41
PRUHONICE	59.36	40.4	9 59	-1				
SKALSTUGAN	62.52	25.2	10 20	-1				
BOZEMAN	62.58	313.9	10 22	0				
BANGUI	63.64	92.5	10 23	-6				
UPPSALA	63.66	30.1	10 33	4				
BOULDER CITY	64.95	303.0	10 38	1				
BANDEIRA	65.04	114.5	10 45K	7				
EUREKA	65.84	306.8	10 43	0				
UMEA	65.94	26.2	10 44	0	19 39	12		
BLUE MTS.	66.93	312.6	10 49	-1				11 27
KIRUNA	67.15	22.0	10 51	0				
TROMSOE	67.20	20.0	10 52	0				
NURMIJARVI	67.23	30.3	10 50A	-2				
HELSINKI	67.32	30.7	10 51A	-1				
ALERT	67.93	357.6	10 55	-1				
WOODY	68.23	302.8	11 0	2				
PENTICTON	68.64	317.4	11 0	-1				
KAJAANI	69.22	26.7	11 3	-1				
SODANKYLA	69.35	23.1	11 4	-1				
KEVO	69.95	20.7	11 14	5				
MINERAL	70.15	307.9	11 10A	0				

MOULD BAY	71.80	346.0	11	20	0					
APATITY	71.97	23.3	10	56A	-25				11	26
JERUSALEM	74.29	60.7	11	34	0					
KSARA	74.56	58.6	11	38	2				13	35
COLLEGE	81.84	335.1	12	16	0					
SHIRAZ	89.28	59.6	12	55	2					
TOOLANGI	155.54	200.9	20	14	26					

SEPTEMBER 23 15.H 50.M 48.S EPICENTRE 60.28-150.81 DEPTH= 93.KM

A=-0.43497 B=-0.24296 C= 0.86705 D=-0.4877 E= 0.8730
G=-0.7570 H=-0.4228 K=-0.4982 HT= -9.0

DEPTH OF FOCUS= 0.009R

SE= 1.56

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
COLLEGE	4.81	15.4	1	12	0								
MOULD BAY	19.34	22.2	4	21K	0								
VICTORIA	19.65	114.5	4	23	-1								
SEATTLE	20.80	114.6	4	37	1								
PENTICTON	20.85	107.8	4	36K	0								
BANFF	21.61	99.2	4	44K	0								
LONGMIRE	21.70	115.6	4	45K	0						25	13	
HUNGRY HORSE	24.20	103.0	5	9	0				5	24	5	38	*SP
RESOLUTE	24.48	32.1	5	15	3								
BLUE MTS.	25.19	112.7	5	19K	0								
BUTTE	26.55	105.2	5	32	1				5	51	6	50	PP
MINERAL	26.94	124.6	5	34K	-1								
BOZEMAN	27.54	104.0	5	40	0								
CALISTOGA	28.00	127.9	5	44A	0								
RENO	28.36	123.0	5	48K	0								
BERKELEY	28.79	128.2	5	50K	-1								
LICK	29.50	127.9	5	56K	-2								
EUREKA	30.06	118.0	6	2	-1						9	0	PCP
ALERT	30.54	15.0	6	8K	1								
SALT LAKE C.	30.88	111.5	6	7	-3								
DUGWAY	30.89	113.3	5	41K	-29								
PRIEST	30.93	127.7	6	11A	1								
FLAMING GRGE	31.91	108.5	7	19	60								
LARAMIE	33.44	103.9	6	38	6								
BOULDER CITY	33.47	120.2	6	33	1								
PASADENA	33.65	126.2	6	33	-1								
TUCSON TELE.	38.35	118.5	7	14	0				7	34			
TUCSON	38.38	118.7	7	12	-2				7	31			
DUBUQUE	39.90	88.6	7	27K	1								
WICHITA MTS.	42.01	103.4	7	44	0				8	8	9	29	PP
TULSA	42.43	99.6	7	47	0								
SCHEFFERVLLE	42.52	58.4	7	49A	1								
ROLLA	42.79	94.2	7	50K	0								
FLORISSANT	42.85	92.0	7	50	-1								
FAYETTEVILLE	43.07	97.9	7	51K	-2								
BLOOMINGTON	44.48	88.2	8	3K	-1								
SHAWINIGAN	45.68	70.7	8	14	1								
BREBEUF	46.05	72.3	8	16K	0								
MORGANTOWN	47.39	82.4	8	28A	1								
MATUSIRO	49.85	275.1	8	43	-3						23	59	
KEVO	50.24	1.0	9	4	16								
HALIFAX	51.37	65.9	8	57A	0								
KIRUNA	52.03	4.2	9	2	0								
APATITY	52.43	357.9	9	4A	-1								
SODANKYLA	52.64	1.2	9	7	0								
SKALSTUGAN	55.79	9.1	9	29	-1								
KAJAANI	55.95	0.8	9	30	-1								
UMEA	56.03	4.8	9	30	-2								
KONGSBERG	59.43	11.4	9	55	0								
NURMIJARVI	59.49	2.6	9	55	-1								
HELSINKI	59.84	2.4	9	57	-1								
UPPSALA	59.86	6.7	9	57	-1								
GOTEBORG	61.58	10.4	10	9	-1								
KARLSKRONA	63.40	8.5	10	21	-1								
WITTEVEEN	65.81	14.8	10	40	2								
BENSBERG	67.70	14.8	10	50	0								
HALLE	67.71	11.5	10	50	0								

COLLMBERG	68.01	10.9	10 51K	-1			12 44
DOURBES	68.19	16.8	10 52	-1			
JENA	68.23	11.9	10 52	-1			11 14
FOLINIERE	68.67	20.6	10 55	-1			
PRAGUE	69.36	10.1	11 0	0			
PRUHONICE	69.46	10.0	11 1K	1			
STRASBOURG	70.11	14.9	11 5	1			11 27
STUTTGART	70.11	13.9	11 4	0			
KASPERSKE H.	70.21	10.8	11 5	0			
GARCHY	70.71	18.5	11 8	0			11 30
BESANCON	71.17	16.5					11 27
BAGNERES	74.29	21.7					12 2
TOLEDO	76.52	25.7	11 43	1		11 58	
SHILLONG	80.46	305.5	11 59A	-4			
TRINIDAD	80.55	85.2	12 2	-2			
CHATRA	81.19	309.9	12 7	0			
ATHENS	82.00	4.4	12 28	17			
NEW DELHI	83.14	318.8	12 16A	-1			
JERUSALEM	88.14	354.9	12 43	1			
SHIRAZ	88.37	339.8	12 37	-6			
CHARTERS TS.	94.76	237.1	13 25	13			
KIMBERLEY	148.33	7.4	19 36	4			
SOUTH POLE	150.12	180.0	19 38	3			
MIRNY	151.95	229.8	19 42	4			

SEPTEMBER 24 14.H 38.M 26.5 EPICENTRE 42.98 145.40 DEPTH= 57.KM

A=-0.60403 B= 0.41674 C= 0.67934 D= 0.5679 E= 0.8231
G=-0.5592 H= 0.3858 K=-0.7338 MT= -2.8

DEPTH OF FOCUS= 0.004R

SE= 3.27

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SKKP: M	S
NEMURO	0.37	21.1	0	9K	-3	0	17	-4				
KUSIRO	0.73	270.1	0	13K	-3	0	26	-2				
ABASHIRI	1.32	322.3	0	24K	1	0	47	7				
OBIHIRO	1.61	268.5	0	24K	-3	0	51	4				
HIROO	1.69	246.1	0	26A	-2	0	48	-1				
URAKAWA	2.10	247.6	0	33	-1	1	4	5				
ASAHIGAWA	2.35	290.9	0	38A	1	1	14	9				
TOMAKOMAI	2.83	264.1	0	41	-3	1	17	0				
RUMOE	2.91	290.6	0	52	7							
SAPPORO	2.97	273.0	0	46A	0	1	28	7				
MURORAN	3.32	260.0	0	51	0	1	37	7				
WAKKANAI	3.62	313.6	0	58A	3	1	53	16				
HAKODATE	3.63	252.7	0	53	-2	1	35	-2				
MORI	3.67	257.7	0	57	1	1	43	5				
HATINOHE	3.79	231.0	0	52	-5	1	35	-6				
SUTTSU	3.80	269.0	0	54	-4	1	50	8				
AOMORI	4.07	239.5	0	59	-2	1	51	3				
MIYAKO	4.21	218.9	0	57	-6	1	42	-10				
Y.-SAKHLINSK	4.46	335.7	1	6K	-1						2	9
MORIOKA	4.57	225.5	1	3K	-5	1	51	-10				
MIZUSAWA	5.02	221.4	1	10	-5	1	53	-19				
AKITA	5.15	232.5	1	15	-1	2	16	1				
ISINOMAKI	5.50	215.6	1	14	-7	2	13	-11				
SENDAI	5.82	217.5	1	20	-6	2	16	-16				
SAKATA	5.86	227.8	1	25	-1							
YAMAGATA	6.09	220.8	1	24	-5	2	28	-11				
HUKUSIMA	6.44	217.4	1	29	-5	2	36	-11				
UGLEGORSK	6.52	340.4	1	39	3						2	48
ONAHAMA	6.94	211.3	1	50	9	2	47	-13				
NIIGATA	7.00	225.9				2	42	-19				
SHIRAKAWA	7.07	215.8	1	42	-1	2	50	-13				
AIKAWA	7.36	230.1	1	45	-2	3	1	-9				
MITO	7.61	211.6	1	43	-8	3	3	-13				
UTUNOMIYA	7.71	215.3	1	50	-2							
KAKIOKA	7.85	212.6	1	47	-7	3	5	-17				
TUKUBASAN	7.89	212.9	1	46	-9	3	6	-17				
TAKADA	8.03	225.4	1	37	-19	3	17	-10				
MAEBASI	8.18	218.7	1	56	-3							
KUMAGAYA	8.25	216.2	1	54	-5	3	21	-11				
NAGANO	8.39	223.7	2	11	14	3	42	6				

OIWAKE	8.48	220.7	2	0	-3	3	32	-6			
MATUSIRO	8.48	223.1	1	56A	-7	3	45	7			
TOKYO C.M.O.	8.50	212.8	2	5	2	3	23	-15			
WAZIMA	8.58	232.1	2	2	-2						
YOKOHAMA	8.76	212.5				3	34	-11			
TOYAMA	8.89	227.8							2	57	
KOHU	9.02	218.2	2	7	-3	3	41	-10			
HUNATU	9.07	216.7	2	28	17	3	39	-13			
AJIRO	9.31	213.8	2	7	-7	3	45	-13			
MISIMA	9.31	214.7	2	21	7						
KANAZAWA	9.32	229.2							3	27	
OSIMA	9.44	211.7				3	46	-15			
IIDA	9.48	220.7	2	12	-4				2	37	
SHIZUOKA	9.68	216.5				3	55	-12			
VLADIVOSTOK	9.88	275.4	2	21A	-1	4	14	2			
OMAESAKI	10.07	216.1							2	46	
GIHU	10.10	224.3	1	59	-26						
NAGOYA	10.18	222.8	2	33	7	4	48	28			
HAMAMATU	10.19	218.5	2	52	26						
HIKONE	10.47	225.7	2	25	-5	4	37	10			
KAMEYAMA	10.69	223.5							2	55	
KYOTO	10.94	226.6	2	35	-1	4	44	6			
ABUYAMA	11.14	226.6	2	31A	-8						
OSAKA	11.33	226.0				5	21	35	3	24	
SUMOTO	11.89	227.0	2	32	-17						
KOTI	13.24	228.6	3	13	6	5	45	12			
OOITA	14.56	232.6	3	20	-4						
CHANGCHUN	14.63	280.2	3	23	-2						
KUMAMOTO	15.39	233.6	3	30	-5						
KAGOSIMA	16.39	230.8	3	37	-10						
MAGADAN	16.92	9.5	3	58	4	7	12	13			
YAKUSIMA	17.26	228.4							4	59	
YAKUTSK	21.21	339.4	4	43	0						
PEKING	22.04	272.3	4	50A	-1	8	48	3			
ZO-SE	22.59	246.3	4	55A	-1						
NANKING	23.66	251.4	5	6A	-1	9	24	10			
PAOTOW	26.37	276.9	5	33A	0	10	7	7			
ULAN-BATOR	27.25	293.9	5	41A	0	10	17	3			
IRKUTSK	28.85	303.2	5	54	-1	10	41	1	6	49	PP
SIAN	29.62	265.2	6	1A	-1	10	53	1			
LANCHOW	32.55	271.9	6	28A	0	11	42	4	7	33	PP
CANTON	33.11	243.5	6	32A	-1	11	49	2			
HONG KONG	33.13	241.5	6	33	0	11	50	3			
ESEN BULAK	34.66	293.0	6	47A	1	12	15	4			
CHENGTU	35.00	263.3	6	48A	-1	12	21	5	8	12	PP
MANILA	35.10	223.9	6	47	-3	12	17	0			
KUNMING	39.10	256.9	7	24A	1	13	23	5	8	57	PP
COLLEGE	42.46	35.5	7	50	-1	15	11	63			
SEMIPALATNSK	44.00	303.3	7	56A	-7	14	25	-6			
LHASA	45.05	271.3	8	13A	1						
RABAUL	47.36	170.8	8	28	-2	15	14	-5			
CHITTAGONG	48.68	262.7	8	41A	1	15	52	15	10	26	PP
CHATRA	49.44	270.7	8	47	1						
MOULD BAY	49.96	18.2	8	49	-1						
FRUNSE	50.37	295.6	8	53A	0	16	9	8			
PORT MORESBY	52.15	177.8	9	1	-6	16	26	1	9	49	
BOKARO	52.19	268.5	9	9	2						
SVERDLOVSK	52.82	316.6	9	11K	-1	16	37	3			
ALERT	53.99	4.4	9	19	-1						
DEHRA DUN	54.15	280.1	9	21	-1				16	55	
KHOROG	54.98	291.1	9	28	0	17	10	6			
NEW DELHI	55.74	278.9	9	32A	-1	17	15	1			
RESOLUTE	56.07	16.2	9	36	1						
LAHORE	56.15	283.5	9	35	-1						
DUZHANBE	56.30	293.6	9	35A	-2	17	22	1			
WARSAK DAM	56.79	287.5	9	40A	-1						
APATITY	58.55	335.3	9	52K	-1	17	55	4	19	37	SCS
THULE	58.95	8.8	9	54	-2						
KEVO	58.97	339.1	9	54	-2	17	58	2			
VICTORIA	60.17	50.0	10	4	0						
SODANKYLA	60.68	337.1	10	7A	-1						
TROMSOE	61.08	341.2	10	9	-1						
PENTICTON	61.84	47.7	10	15K	0						
KIRUNA	62.04	339.4	10	16	-1						
LONGMIRE	62.05	51.0	10	16	-1	18	40	4			
QUETTA	62.16	286.4	10	17	0	18	41	4			
KAJAANI	62.59	334.0	10	19A	-1						
CHARTERS TS.	62.76	179.1	10	19	-3						
BANFF	62.93	44.3	10	21	-2						

MADRAS	63.15	262.7	10	25	1	19	24	35			
ASHKABAD	63.52	298.1	10	27	0	18	57	3			
POONA	64.22	271.8	10	29A	-2						
MOSCOW	64.31	323.3	10	31A	-1	19	5	1			
PULKOVO	64.62	329.5	10	33A	-1	19	9	1		19	26 PS
UMEA	65.08	336.4	10	35	-2	19	10	-3			
HUNGRY HORSE	65.40	46.2	10	38	-1						
UKIAH	65.59	58.6	10	41	1						
BLUE MTS.	65.72	50.7	10	40	-1					13	23 PP
NURMIJARVI	66.12	332.3	10	43A	0						
HELSINKI	66.26	331.9	10	43	-1						
CALISTOGA	66.29	58.7	10	52A	8						
BERKELEY	66.95	59.2	10	52A	3	19	43	7			
RENO	67.46	56.5	10	52K	0						
SKALSTUGAN	67.47	339.3	10	52	0						
BUTTE	67.63	47.5	10	53	0						
LICK	67.66	59.4	10	52A	-1						
BOZEMAN	68.67	47.0	10	59	0					13	42
UPPSALA	68.93	334.7	11	0	-1						
PRIEST	69.02	59.9	11	13K	12						
TEHERAN	69.31	299.8	11	3	0						
TIFLIS	69.55	308.2	11	6	1	20	16	9			
EUREKA	69.82	54.6	11	6	0						
GORIS	70.07	305.6	11	8A	0	20	17	4		13	44 PP
BRISBANE	70.35	173.0								25	0
DUGWAY	71.22	52.4	11	14A	-1						
SALT LAKE C.	71.41	51.4	11	17	1						
KONGSBERG	71.45	338.1	11	16	0					13	51 PP
PASADENA	71.86	60.1	11	17	-2	20	33	-1			
BERGEN	71.93	340.4	11	19	0						
SHIRAZ	72.40	294.2	11	21A	-1	20	39	-1	11 42	14	13 PP
GOTEBORG	72.41	335.8	11	22	0						
KARLSKRONA	72.53	333.2	11	21	-2						
BOULDER CITY	72.76	56.8	11	25	1					11	39 PCP
PRICE	72.77	51.8	11	25K	1						
SIDA	72.78	352.4	11	32	8						
SIMFEROPOL	73.19	316.3	11	26A	0					21	30 SCS
RAPID CITY	73.86	44.3	11	30	0					11	45 PCP
GLEN CANYON	74.07	54.2	11	35	3						
KISHINEV	74.28	320.5	11	32A	-1	21	4	3		11	43 PCP
LARAMIE	74.54	47.6	11	35	1					12	25
GOLDEN	75.78	48.7	11	47	6						
KRAKOW	75.83	327.2	11	43	1	21	27	9			
RACIBORZ	76.48	328.1	11	47	2					11	58 PCP
COLLMBERG	77.40	331.6	11	51	1					16	25
HALLE	77.60	332.3	11	51	-1					26	50 SS
ADELAIDE	77.82	185.6	11	52	-1						
PRAGUE	77.91	330.2	11	54	1						
PRUHONICE	77.94	330.0	11	54A	1					13	47
CANBERRA	78.00	177.0	11	53	-1						
WITTEVEEN	78.16	335.9	11	56K	1						
JENA	78.20	332.2	11	53	-2	21	55	11		27	22 SS
BUDAPEST	78.23	326.1	11	56	1					13	19 PP
ISTANBUL UN.	78.61	316.3	11	57A	0						
DURHAM	78.63	341.2	11	58A	1						
VIENNA-H.	78.67	328.0	11	59A	2				12 17		
SCHEFFERVLLE	78.78	18.3	11	58	0						
KASPERSKE H.	79.00	330.1	12	0A	1					12	55
BENSBERG	79.62	334.6	12	2A	-1	21	59	0		15	20 PP
BELGRADE	79.74	323.6	12	6K	3	22	6	6		22	21 SKS
KSARA	80.08	307.2	12	6	1	22	3	-1	12 24	15	5 PP
SOFIA	80.11	320.6	12	5	0						
HEIDELBERG	80.47	333.0	12	8	1						
MANHATTEN	80.81	44.0	12	8	-1	22	19	8			
STUTTGART	80.82	332.3	12	9	0						
TUBINGEN	81.10	332.3	12	11	0						
DUBUQUE	81.11	38.4	12	10	-1						
DOURBES	81.17	335.7	12	11	0						
LJUBLJANA	81.20	327.8	12	11	0					12	49
KEW	81.33	339.1	12	11	-1						
EBINGEN	81.44	332.2	12	12	0						
STRASBOURG	81.50	333.1	12	14	1					12	52
TRIESTE	81.83	328.0	12	15	1						
LUBBOCK	82.12	51.0	12	17	1						
BASLE	82.47	332.7	12	13	-5						
WICHITA MTS.	83.11	48.2	12	21	0	22	34	-1		15	17 PP
BESANCON	83.25	333.5	12	22	0						
TULSA	83.71	45.7	12	24	0						

FOLINIERE	83.83	338.1	12 25	1							
GARCHY	84.14	335.3	12 27	1						12 34	PCP
ROLLA	84.15	42.0	12 26	0	22 43	-2	12 35				
FLORISSANT	84.18	40.5	12 25	-1			12 35				
FLORENCE X.	84.37	328.5	12 31	4	23 4	16					
AQUILA	84.72	326.4	12 31	2	22 54	3				24 8	PS
TARRALEAH	84.90	179.2	12 38	8							
KARAPIRO	85.07	156.5	12 39	8							
BREBEUF	85.30	26.4	12 32K	0	22 56	0					
ROME	85.47	326.7	12 32	-1	23 4	6					
CLERMONT-FD.	85.48	334.6	12 35K	2							
BLOOMINGTON	85.66	37.8	12 37	3	23 2	2	12 43				
MORGANTOWN	88.09	33.3	12 53K	8							
BAGNERES	88.83	335.3	12 49	0							
TOLEDO	93.01	336.9	13 9	1	24 6	-1					
BANGUI	112.74	300.0	18 32	2						19 19	PP
MIRNY	116.32	200.7								20 12	
MAWSON	126.21	208.1	18 56K	0			19 5				
SOUTH POLE	132.79	180.0	19 9	0							
SANTA LUCIA	150.32	83.4	19 46	7							

SEPTEMBER 25 0.H 21.M 14.5 EPICENTRE -55.74-124.72 DEPTH= 50.KM

A=-0.32210 B=-0.46486 C=-0.82472 D=-0.8220 E= 0.5695
G= 0.4697 H= 0.6779 K=-0.5655 HT= -7.5

DEPTH OF FOCUS= 0.003R

SE= 2.94

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
BYRD STATION	24.45	177.8	5 15	0				9 42	
CAPE HALLETT	30.89	212.7	6 24	11					
SCOTT BASE	31.80	202.0	6 25	3					
SOUTH POLE	34.44	180.0	6 43	-1					
WELLINGTON	41.25	264.3	7 42	1	14 4	13		9 21	PP
ROXBURGH	41.57	255.6			14 10	14			
TUAI	41.59	268.9	7 43	-1					
DUMONT	42.62	215.9						14 25	
KARAPIRO	43.10	268.5	7 57	1					
SANTA LUCIA	43.13	82.1			14 20	1			
WILKES	51.36	205.1	9 3	2	16 22	7			
MIRNY	54.78	197.4	9 26	0					
AREQUIPA	56.15	67.7	9 33	-3					
SUVA	56.67	287.7						23 58	SSS
MAWSON	56.85	183.5	9 38A	-3			9 59	10 20	PCP
RIVERVIEW	59.66	253.6			18 16	10		25 18	
CANBERRA	59.69	251.0	10 1	0					
NOUMEA	59.98	274.1	10 2A	-1					
KOUMAC	62.58	273.5	10 20A	-1					
BRISBANE	63.70	259.5	10 25	-3	18 44	-13			
ADELAIDE	65.33	243.9	10 37	-2	19 30	13			
CHINCHINA	72.67	52.1	11 22	-2					
CHARTERS TS.	73.10	259.2	11 26	0					
FUQUENE	73.96	53.6	11 34	3					
MUNDARING	78.41	229.3	11 55	-1					
PORT MORESBY	81.26	266.2	12 13	1	22 28	11			
CARACAS	81.54	57.3	12 16K	3	22 16	-4			
PABAUL	82.67	273.3	12 20	1					
TUCSON TELE.	88.54	11.8	12 44	-4					
WOODY	91.21	4.8	12 59	-2					
PRIEST	91.58	3.3	13 6A	4					
ALBUQUERQUE	91.67	14.9	13 0	-3			13 28		
LICK	92.75	2.5	13 20	12					
WICHITA MTS.	92.83	21.3	13 5	-3	24 18	11		25 34	PS
GLEN CANYON	93.02	10.5	13 13	4					
BERKELEY	93.27	1.9			24 16	6		25 34	
CALISTOGA	94.03	1.7	13 17A	4					
TULSA	94.57	23.2	13 17	1					
FAYETTEVILLE	95.11	24.4	13 17	-1					
EUREKA	95.14	6.8	13 17	-2					
DUGWAY	96.11	9.1	13 26K	3					
BLUE MTS.	100.41	5.4						17 58	PP
BREBEUF	109.66	35.5						34 16	SS
BANGUI	120.99	136.0	18 50	3					
MOULD BAY	131.75	1.7	19 11	4					

FOLINIERE	145.99	77.9	19	31	-2					20	7	
GARCHY	147.14	82.6	19	41A	6							
PARIS	147.66	79.8	20	42	66							
NEW DELHI	148.64	219.1	19	43	6							
BESANCON	148.75	84.7	19	45	7							
DOURBES	149.51	79.1	19	46	7							
DEHRA DUN	149.90	221.9	19	46	7							
STRASBOURG	150.49	83.8	19	50	10							
STUTTGART	151.44	84.6	19	51	9							
WITTEVEEN	151.93	75.4	19	52	10							
JERUSALEM	152.21	141.2	19	50	7							
QUETTA	153.14	202.8	19	58	14							
KREMSMUNSTER	153.80	89.7	19	39	-6			20	11			
KASPERSKE H.	154.05	87.1	19	49	4					20	24	
COLLMBERG	154.77	82.3	19	46	0					20	32	
PRUHONICE	155.02	86.1	19	58	11							

SEPTEMBER 26 12.H 44.M 44.S EPICENTRE -27.44-176.46 DEPTH= 0.KM

A=-0.88707 B=-0.05489 C=-0.45835 D=-0.0618 E= 0.9981
G= 0.4575 H= 0.0283 K=-0.8888 HT= 2.6

SE= 2.86

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
RAOUL ISLAND	2.22	215.2	0	40	2								
SUVA	10.37	331.9	2	27	-6								
ONERAHI	11.40	221.0	2	55	8						6	44	
KARAPIRO	12.44	210.7	3	14	13								
TUAI	12.53	203.6	2	59	-3	5	10	-14					
CHATEAU	13.49	207.6	3	13	-2	5	58	11					
TARATA	13.99	210.8	3	23	1								
APIA	14.26	18.8	3	18	-7	5	48	-17					
WELLINGTON	15.58	205.3	3	40	-4	6	19	-17					
NOUMEA	16.33	284.5	3	57K	5	7	17	23					
PORT VILA	17.04	301.4	4	5A	4	7	32	22					
GEBBIES PASS	18.46	205.6	4	18	-1	7	25	-18					
KOUMAC	18.87	287.1	4	27	3	8	15	23					
BRISBANE	27.27	262.9	5	46	-2	10	35	9					
RIVERVIEW	28.51	249.1	5	58A	-1						12	47	
HONIARA	28.57	304.3	5	57	-3								
CANBERRA	30.40	246.4	6	16	0				6	26			
MOORLANDS	33.07	233.5	6	47	8								
TOOLANGI	33.45	242.7	6	42K	-1				6	52	9	23	PCP
TARRALEAH	33.55	234.0	6	42	-2								
CHARTERS TS.	34.80	273.9	6	54	0						13	20	
RABAUL	37.80	302.1									18	2	
PORT MORESBY	38.71	290.6	7	27K	0				7	38			
ADELAIDE	38.81	247.5	7	27K	-1								
SCOTT BASE	51.08	184.5	9	8	2						13	0	
KIPAPA	51.74	22.0	9	12	1								
BYRD STATION	57.59	170.0	9	53	-1						13	43	
MUNDARING	57.82	247.9	9	49	-6				10	47			
WILKES	58.39	207.0	9	56	-3								
SOUTH POLE	62.72	180.0	10	29	0								
MIRNY	65.37	206.1	10	44	-2						11	58	
LEMBANG	74.40	270.3	11	39A	-2						15	25	
MAWSON	75.54	199.9	11	47A	-1						15	27	PP
MATUSIRO	76.61	323.9	11	53A	-1	21	44	4					
ARUYAMA	76.80	321.1	11	55K	0								
PRIEST	82.23	42.5	12	26K	2								
PASADENA	82.45	45.4	12	26	1	22	59	17					
LICK	82.46	41.1	12	28K	3								
BERKELEY	82.46	40.4	12	27K	2	22	46	4			22	38	
CALISTOGA	82.80	39.6	12	28K	1								
RENO	85.00	40.4	12	52A	14								
NANKING	85.43	309.6	12	40	-1								
BOULDER CITY	85.73	45.7	12	44	2								
TUCSON	86.14	50.7									16	34	PP
TUCSON TELE.	86.27	50.7	12	47	2								
EUREKA	87.22	42.4	12	50	1						16	31	PP
DUGWAY	89.57	43.3	13	2	1								
BLUE MTS.	89.88	37.6	13	2A	0						16	48	PP
ALBUQUERQUE	90.67	50.5	13	6	0						16	56	PP
PENTICTON	91.63	33.2	12	56	-14								

PEKING	91.78	314.8	19 11	0				
BUTTE	93.22	38.8						18 49 PP
KUNMING	93.71	296.3	19 21	1				
GOLDEN	93.98	47.2	19 22	1				
COLLEGE	94.67	11.9	19 24	0				19 11 PP
WICHITA MTS.	96.09	54.1	19 30	-1	24 58 51		19 42	19 16 PP
MOULD BAY	109.24	12.3	19 55	777				
KIMBERLEY	120.54	201.7	18 55K	1				
QUETTA	125.01	289.0	19 4K	2				
SHIRAZ	137.17	285.0	18 22	-63				22 59
KIRUNA	138.32	350.5	19 22	-5				
UMEA	142.04	348.0	19 30	-4				
SKALSTUGAN	143.41	353.5	19 35	-1				
NURMIJARVI	143.95	342.4	19 35	-2				
HELSINKI	144.15	341.8	19 36	-2				
UPPSALA	146.18	347.2	19 41	0				
GOTEBORG	149.17	351.2	19 50	4				
KARLSKRONA	150.02	346.5	19 52	5				
KSARA	151.53	290.9	19 58	5				23 52 PP
JERUSALEM	152.17	286.6	20 0	9				23 47 PP
BANGUI	152.93	214.8	20 0	8				
NIEDZICA	154.53	334.0	19 59	1				20 17
COLLMBERG	155.12	345.8	20 4	9				23 49 PP
STUTTGART	158.24	349.7						20 34
FOLINIERE	158.48	7.3						20 34

SEPTEMBER 27 9.M 18.M 30.5 EPICENTRE 42.43 142.47 DEPTH= 83.KM

A=-0.58669 B= 0.45087 C= 0.67282 D= 0.6092 E= 0.7930
G=-0.5336 H= 0.4099 K=-0.7398 H1= -2.6

DEPTH OF FOCUS= 0.008R

SE= 4.49

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
URAKAWA	0.40	144.8	0 9A	-6	0 16	-10		
HIROO	0.66	107.1	0 13A	-4	0 23	-7		
TOMAKOMAI	0.68	283.4	0 15	-2	0 27	-3		
OBIHIRO	0.70	50.3	0 17A	0	0 32	1		
SAPPORO	1.02	306.1	0 20K	0	0 37	2		
MURORAN	1.11	262.4	0 19	-2	0 33	-4		
ASAHIGAWA	1.30	356.8	0 26K	2	0 46	6		
HAKODATE	1.44	242.9	0 20K	-5	0 37	-7		
MORI	1.46	255.7	0 24	-2	0 43	-2		
KUSIRO	1.51	69.9	0 25	-1	0 46	0		
RUMOF	1.60	337.4	0 30K	2	0 55	7		
SUTTSU	1.68	281.8	0 27	-2	0 50	0		
ABASHIRI	2.03	40.0	0 36	3	1 8	10		
HATINOHE	2.07	200.3	0 26K	-8	0 47	-12		
AOMORI	2.08	218.0	0 27K	-7	0 49	-10		
NEMURO	2.44	68.5	0 38	-1	1 9	1		
MIYAKO	2.85	187.8	0 33	-12	1 1	-17		
MORIOKA	2.94	199.9	0 39	-7	1 5	-15		
WAKKANAI	3.00	349.3	0 55	8	1 39	17		
AKITA	3.29	213.8	0 48	-3	1 21	-8		
MIZUSAWA	3.50	197.4	0 49	-5	1 33	-1		
SAKATA	4.10	210.2	0 55	-7				
ISINOMAKI	4.14	192.6	0 52	-10	1 34	-16		
SENDAI	4.37	196.4	0 57	-9	1 42	-14		
YAMAGATA	4.52	201.7	0 59	-9	1 44	-16		
Y.-SAKHLINSK	4.55	2.2	1 12K	4				
HUKUSIMA	4.96	198.6	1 10	-4				
NIIGATA	5.25	211.0						1 42
SHIRAKAWA	5.62	198.7	1 21	-2	2 19	-8		
ONAHAMA	5.65	192.9	1 24	1				
UTUNOMIYA	6.25	199.6	1 22	-9				
TAKADA	6.28	212.6	1 16	-16	2 25	-18		
MITO	6.28	194.9	1 23	-9	2 27	-16		
KAKIOKA	6.49	196.6	1 24	-11				
TUKUBASAN	6.51	197.1	1 24	-11				2 33
MAEBASI	6.61	204.5	1 45	8	2 44	-7		
NAGANO	6.67	211.0	1 34	-3				
KUMAGAYA	6.76	201.8	1 44	5				
MATUSIRO	6.78	210.4	1 31	-8	2 58	3		
OIWAKE	6.85	207.6	1 38	-2				

TYOSI	6.86	191.1	1	40	0	3	13	16				
TITIBU	7.00	203.2	1	45	3							
TOKYO C.M.O.	7.11	198.2	1	48	5							
YOKOHAMA	7.37	198.2				3	26	16				
KOHU	7.45	205.4				3	17	5			2	58
HUNATU	7.54	203.7									2	54
VLADIVOSTOK	7.80	278.3	1	54	1	3	22	2				
IIDA	7.83	209.0	1	49	-4	3	14	-7				
AJIRO	7.87	200.6	1	44	-10	3	4	-18				
SHIZUOKA	8.14	204.3				3	11	-18				
GIHU	8.34	214.0	1	45	-15							
NAGOYA	8.46	212.2	2	31	29	4	4	27				
ABUYAMA	9.31	217.6	2	8K	-5							
COLLEGE	44.12	35.1	8	2	0							
CHITTAGONG	46.47	260.9	8	18	-2							
ALMATA-2	46.60	294.2	8	22K	0							
CHATRA	47.28	269.2	8	27	0							
SVERDLOVSK	51.70	316.1	9	0K	-1							
NEW DELHI	53.67	277.5	9	12	-3							
LAHORE	54.16	282.2	9	17	-2							
ALERT	54.65	3.9	9	22	-1							
WARSAK DAM	54.87	286.3	9	23A	-1							
APATITY	58.09	334.7	9	46A	-1							
KEVO	58.66	338.4	9	50	-1							
QUETTA	60.22	285.0	10	0A	-2						10	18 *SP
SODANKYLA	60.29	336.4	10	1	-1							
KIRUNA	61.74	338.6	9	59	-13							
KAJAANI	62.08	333.1	10	13A	-1							
CHARTERS TS.	62.35	176.0									10	32
PENTICTON	63.76	46.3	10	25	0							
UMEA	64.66	335.5	10	30	-1							
NURMIJARVI	65.55	331.3	10	36A	-1							
HELSINKI	65.68	330.9	10	37	-1							
SKALSTUGAN	67.16	338.2	10	45	-2							
HUNGRY HORSE	67.29	44.7	10	48	0							
TEHERAN	67.67	298.4	10	46	-4							
BLUE MTS.	67.70	49.2	10	51	1						12	11
KIROVOBAD	67.89	305.3	10	51A	-1							
MINERAL	67.94	55.1	11	2A	10							
TIFLIS	68.15	306.9	10	54	1							
UPPSALA	68.44	333.5	10	54A	-1							
SHIRAZ	70.63	292.7	11	7A	-1						11	32
EUREKA	71.86	52.9	11	15	-1							
DUGWAY	73.23	50.7	11	25A	1							
PRUHONICE	77.27	328.5	11	48A	1							
GOLDEN	77.72	47.0	11	51	2							
KASPERSKE H.	78.33	328.5	11	53A	0							
KSARA	78.65	305.5	11	56	2							
STUTTGART	80.24	330.7	12	4	1							
JERUSALEM	80.46	304.4	12	5	1							
ALBUQUERQUE	80.49	51.0	12	5	1							
MANHATTEN	82.65	42.2	12	15	-1							
DUBUQUE	82.83	36.6	12	16	-1							
FOLINIERE	83.46	336.3	12	19	-1							
WICHITA MTS.	85.03	46.4	12	28	0						12	44
FLORISSANT	85.95	38.6	12	32	0							
ROLLA	85.95	40.1	12	33	1							
ST. LOUIS 1	86.14	38.6	12	33	0							
FAYETTEVILLE	86.26	42.7	12	33A	-1							
BREBEUF	86.68	24.5	12	36K	0							

SEPTEMBER 27 12.H 56.M 14.S EPICENTRE -5.33 103.57 DEPTH= 89.KM

A=-0.23366 B= 0.96793 C=-0.09230 D= 0.9721 E= 0.2347
G= 0.0217 H=-0.0897 K=-0.9957 HT= 7.0

DEPTH OF FOCUS= 0.009R

SE= 3.37

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
DJAKARTA	3.35	104.7	0	50	-1	1	16	-14				
LEMBANG	4.29	110.5	1	3	-1	1	47	-6				
NHATRANG	18.32	17.8	4	3	-6							
MANILA	26.39	40.9	5	51	21							
DARWIN	27.81	106.4	5	37	-6				6	15		

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MUNDARING	29.02	157.5	5	55K	2			6	30			
CHITTAGONG	29.83	337.7	5	56	-5	10	40 -9	6	30	6	58	PP
KUNMING	30.28	358.5	6	31	26	11	42 46					
SHILLONG	32.75	340.2	6	21K	-5	11	34 -1			12	37	
CHATRA	35.70	334.4	6	49K	-2							
LHASA	36.79	341.6	6	58	-3	12	27 -10					
POONA	37.69	309.7	7	10K	2	12	51 0			17	4	
BOMBAY	38.70	309.3	7	18K	2	13	7 1			8	56	
LANCHOW	41.16	0.3	7	32	-5							
NEW DELHI	42.21	324.4	7	43K	-2							
PORT MORESBY	43.38	98.0	7	48A	-7					9	40	
ADELAIDE	43.84	137.0	7	58K	-1			8	27			
CHARTERS TS.	43.99	113.4	7	55	-5	14	12 -12					
LAHORE	46.07	324.6	8	14	-2							
KARACHI	46.49	311.8	8	22K	2							
PEKING	46.61	13.3	8	46	25							
WARSAK DAM	49.46	324.6	8	41K	-2							
QUETTA	49.77	317.4	8	44K	-1					18	22	
TOOLANGI	49.85	136.0	8	46	0			9	15	10	4	PCP
CANBERRA	51.35	131.8	8	55A	-2			9	26	10	8	PCP
BRISBANE	51.64	120.8	8	58	-1					11	26	
KHOROG	52.01	327.6	9	0	-2	16	9 -8					
RIVERVIEW	52.39	129.1	9	34A	29							
MATUSIRO	52.77	35.1	9	31	23							
DUZHANBE	54.29	326.6	9	16	-3							
HONIARA	56.01	97.7	9	24	-7							
TASHKENT	56.02	329.2	9	28	-3	17	0 -11					
TANANARIVE	56.18	250.9	9	42A	9							
SHIRAZ	60.04	308.6	10	0K	0							
ASHKABAD	60.14	319.7	9	59	-1	17	55 -10					
VANNOVSKAYA	60.30	319.5	9	59	-2							
WILKES	61.09	176.8	10	9A	2							
MIRNY	61.55	184.8	10	13	3							
TEHERAN	63.70	314.2	10	24	0							
MACQUARIE I.	66.11	148.3	10	40	0							
DUMONT	66.19	165.0	10	37	-3							
KIROVOBAD	69.51	316.9	10	59K	-2	19	55 -5					
TIFLIS	71.02	317.4	11	9	-1	20	13 -4					
SVERDLOVSK	71.12	336.7	11	6A	-4							
CHATEAU	72.69	129.3	11	17	-3				11	49		
BROKEN HILL	74.28	256.5	11	34A	5							
LWIRO	74.64	269.1	11	36A	5							
JERUSALEM	74.66	304.8	11	33	2							
SCOTT BASE	79.32	168.9	11	59	2							
MOSCOW	81.17	328.5	12	4	-3							
SOUTH POLE	84.70	180.0	12	27	2							
BANGUI	85.39	274.8	12	32	4	22	55 5					
APATITY	87.44	338.8	12	34	-4	23	2 -8					
UZHGOROD	88.21	319.0	12	42	0							
KAJAANI	88.63	334.8	12	41	-3							
HELSINKI	88.94	330.6	12	43	-2							
NURMIJARVI	89.17	330.9	12	44A	-3							
BYRD STATION	92.06	173.2	13	2	2							
UPPSALA	92.53	329.7	13	0	-2							
LJUBLJANA	93.14	315.8	13	5	0							
COLLEGE	102.66	24.5	18	31	283							
PENTICTON	123.01	32.3	18	44	-2							
HUNGRY HORSE	126.51	30.4	18	50	-3							
MINERAL	126.59	42.5	18	51K	-2							
CALISTOGA	126.70	44.8	18	52K	-1							
BLUE MTS.	126.90	35.6	18	51	-2							
BERKELEY	127.26	45.5	18	53K	-1							
LICK	127.94	45.8	18	53K	-2							
PRIEST	129.18	46.8	18	57K	-1							
EUREKA	130.75	40.6	18	59	-2							
PASADENA	131.89	47.9										
DUGWAY	132.33	37.9										
GOLDEN	136.97	33.2	19	12	0							
ALBUQUERQUE	139.53	39.3	19	16	-1							
WICHITA MTS.	144.29	32.2	19	21	-4							
ROLLA	144.65	21.4	19	22	-4							
TULSA	144.74	27.8	19	22	-4							
BLOOMINGTON	145.08	13.7	19	31	4							
FAYETTEVILLE	145.31	25.7	19	23	-4							
MORGANTOWN	145.71	4.8	19	26	-2							
LITTLE ROCK	147.20	24.6	19	30	0							

MUNDARING												
CHITTAGONG												
KUNMING												
SHILLONG												
CHATRA												
LHASA												
POONA												
BOMBAY												
LANCHOW												
NEW DELHI												
PORT MORESBY												
ADELAIDE												
CHARTERS TS.												
LAHORE												
KARACHI												
PEKING												
WARSAK DAM												
QUETTA												
TOOLANGI												
CANBERRA												
BRISBANE												
KHOROG												
RIVERVIEW												
MATUSIRO												
DUZHANBE												
HONIARA												
TASHKENT												
TANANARIVE												
SHIRAZ												
ASHKABAD												
VANNOVSKAYA												
WILKES												
MIRNY												
TEHERAN												
MACQUARIE I.												
DUMONT												
KIROVOBAD												
TIFLIS												
SVERDLOVSK												
CHATEAU												
BROKEN HILL												
LWIRO												
JERUSALEM												
SCOTT BASE												
MOSCOW												
SOUTH POLE												
BANGUI												
APATITY												
UZHGOROD												
KAJAANI												
HELSINKI												
NURMIJARVI										22	59	
BYRD STATION												
UPPSALA												
LJUBLJANA										13	38	
COLLEGE												
PENTICTON												
HUNGRY HORSE												
MINERAL										22	13	
CALISTOGA												
BLUE MTS.										21	8	PP
BERKELEY												
LICK												
PRIEST												
EUREKA												
PASADENA										22	12	SKP
DUGWAY										22	10	
GOLDEN												
ALBUQUERQUE												
WICHITA MTS.										20	59	
ROLLA												
TULSA										22	49	
BLOOMINGTON												
FAYETTEVILLE										21	50	
MORGANTOWN										20	2	
LITTLE ROCK												

SEPTEMBER 27 13.H 25.M 5.S EPICENTRE -17.67-178.81 DEPTH= 501.KM

A=-0.95323 B=-0.01975 C=-0.30161 D=-0.0207 E= 0.9998
G= 0.3015 H= 0.0062 K=-0.9534 HT= 5.2

DEPTH OF FOCUS= 0.074R

SE= 1.75

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
APIA	7.79	61.4	1	55	0	3	26	-1				
PORT VILA	12.26	267.8	2	44K	2	4	58	5				
NOUMEA	14.60	249.2	3	7K	1	5	47	10				
KOUMAC	16.24	257.1	3	24K	1	6	14	7				
ONERAHI	19.02	197.2	3	53	3							
KARAPIRO	20.79	192.7	4	8	1							
TUAI	21.35	188.7	4	10	-2	7	32	-2				
CHATEAU	22.01	191.8	4	15	-3							
HONIARA	22.19	288.9	4	18	-2							
TARATA	22.25	194.1	4	20	0							
WELLINGTON	24.17	191.9	4	36	-1	7	14	-66				
BRISBANE	27.91	244.6	5	9	-2						11	55
ROXBURGH	29.45	197.1	5	23	-1							
RIVERVIEW	31.33	233.3	5	40K	0						6	40
CHARTERS TS.	33.10	260.2	5	55K	0	10	34	-5				
CANBERRA	33.55	232.0	5	59K	0						7	46
PORT MORESBY	34.05	279.4	6	3A	0						8	26
TOOLANGI	37.03	230.3	6	28K	0	11	36	-2			8	14 PP
MOORLANDS	38.01	222.2	6	35	-1							
TARRALEAH	38.41	222.9	6	39	0							
ADELAIDE	41.44	236.9	7	3K	0							
DARWIN	48.81	268.9	8	0	0							
MUNDARING	59.89	242.9	9	17A	-2							
MATUSIRO	67.48	323.5	10	6	-1						13	16
BYRD STATION	67.55	170.7	10	8	1						12	9
LEMBANG	72.33	268.3	10	34A	-2							
SOUTH POLE	72.45	180.0	10	36	0							
MIRNY	73.23	204.7	10	50	9							
BERKELEY	76.61	42.7	11	0A	0							
PRIEST	76.70	45.0	11	1A	1							
LICK	76.72	43.5	11	1A	1							
CALISTOGA	76.85	42.0	11	1A	0							
PASADENA	77.34	47.8	11	5	1							
MINERAL	78.46	41.0	11	10K	0							
RENO	79.14	42.5	11	13A	0							
CHANGCHUN	79.69	322.5	11	16A	0							
EUREKA	81.62	44.1	11	26	0							
TUCSON	81.80	52.5	11	29	2							
LONGMIRE	82.06	35.6	11	27A	-1							
VICTORIA	82.26	33.5	11	29A	0							
PEKING	83.34	315.5	11	35	0							
BLUE MTS.	83.59	39.0	11	36	0				13	21	29	31 PKKP
MAWSON	83.96	199.8	11	37A	-1				13	33		
DUGWAY	84.08	44.7	11	38A	0							
PENTICTON	84.75	34.4	11	42A	0							
COLLEGE	85.62	12.7	11	43	-3				13	41		
SIAN	85.89	307.7	11	49A	2							
ALBUQUERQUE	86.25	51.7	11	50	1							
BUTTE	87.06	39.7	11	50	-3							
HUNGRY HORSE	87.35	37.2	11	53	-1							
KUNMING	87.38	297.2	11	56	2							
BOZEMAN	87.82	40.5	11	58	2							
BANFF	87.96	34.2	11	56A	-1							
GOLDEN	88.98	47.7	12	2A	0							
WICHITA MTS.	92.16	54.3	12	16	0						29	30 PKKP
HUANCAYO	98.91	105.7									15	54
QUETTA	119.33	295.1	17	52	0							
KAJAANI	130.23	345.1	18	12	-1						20	49 SKP
SHIRAZ	131.84	294.2	18	16K	0						20	53
NURMIJARVI	134.01	344.1	18	11	-9						21	1 SKP
HELSINKI	134.22	343.7	18	19	-1							
COLLMBERG	145.15	347.0	18	40	0						21	0
HALLE	145.18	348.2	18	41	1							
BANDEIRA	145.50	201.0	18	43A	2							
JENA	145.79	348.3	18	41	0						19	16
PRAGUE	145.96	344.7	18	44	2							
PRUHONICE	146.02	344.5	18	42	0							
JERUSALEM	146.20	301.0	18	45A	3							
KEW	146.25	1.7	18	43	1							

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LWIRO	146.35	236.7	18 47A	5	
BENSBERG	146.44	353.2	18 43	1	
BUDAPEST	146.85	337.7	18 42	-1	
FELDBERG	147.00	351.4	18 51	8	
KASPERSKE H.	147.05	345.0	18 43	0	19 6
VIENNA-H.	147.07	341.2	18 47	4	
DOURBES	147.53	355.9	18 47	3	
HEIDELBERG	147.76	353.8	18 49	5	
STUTTGART	148.28	349.8	18 45	0	
BELGRADE	148.48	333.3	18 50	5	20 35
TUBINGEN	148.55	349.9	18 51	6	
EBINGEN	148.91	349.9	18 51	5	
FOLINIERE	148.95	2.1	18 51	5	
LJUBLJANA	149.60	341.5	18 51	4	
TRIESTE	150.20	342.1	18 53	5	
GARCHY	150.43	357.4	18 54	6	19 4 PKP?
ATHENS	151.74	320.2	18 56A	6	
BANGUI	158.42	234.3	18 59	0	19 38

SEPTEMBER 28 18.H 56.M 6.S EPICENTRE 5.18 -76.16 DEPTH= 97.KM

A= 0.23823 B=-0.96707 C= 0.08960 D=-0.9710 E=-0.2392
G= 0.0214 H=-0.0870 K=-0.9960 HT= 7.0

DEPTH OF FOCUS= 0.010R

SE= 1.65

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
CHINCHINA	0.58	110.7	0	18	0							
BOGOTA	2.16	104.7	0	39A	4	1	10	9				
BALBOA HTS.	5.05	318.3	1	11	-4	2	7	-6				
GALERAZAMBA	5.64	8.9	1	24A	1	2	31	4				
CARACAS	10.56	59.4	2	28A	-2	4	16	-11				
HOPE	12.76	357.5	2	57	-2	5	15	-4				
SANTIAGO MA.	14.68	305.1	3	26	2							
SAN SALVADOR	15.38	304.2	3	32	-1							
TRINIDAD	15.60	68.7	3	34	-2	6	31	5				
SAN JUAN	16.38	35.9	3	42	-3	6	46	3				
HUANCAYO	17.13	177.2	3	53	-2	7	12	12				
FORT FRANCE	17.56	56.2	3	56	-4	7	8	-2				
ST. CLAUDE	17.83	51.7	4	4	1	7	22	6				
ST. KITTS	17.86	46.3	4	4	0							
COMITAN	19.15	306.3				8	3	19				
MERIDA	20.41	321.4	4	30	-1						5	13
LA PAZ	22.95	159.9	4	56	-1							
VERA CRUZ	23.94	307.3									5	40
TACUBAYA	26.53	304.2									6	19
BERMUDA	29.12	20.3	6	14	20							
ANTOFAGASTA	29.24	169.2	5	54	-1							
CHAPEL HILL	30.71	355.4	6	9	1							
LITTLE ROCK	33.05	335.1	6	27	-1							
MORGANTOWN	34.47	354.8	6	40	-1							
FAYETTEVILLE	34.95	334.0	6	58K	13							
BLOOMINGTON	35.13	346.0	6	45	-1	12	53	42				
TULSA	35.52	332.0	6	49	0	12	14	-3	7	13	12	57 *SS
ROLLA	35.59	338.4	6	48	-2							
ST. LOUIS 1	35.68	340.9	6	50	-1							
PALISADES	35.74	2.9	6	52	1	12	23	3	7	21		
WICHITA MTS.	35.99	327.7	6	51	-2				7	20	8	39 PPP
LUBBOCK	37.00	323.0	7	2	0	12	59	19	7	24		
LAWRENCE	37.83	335.4	7	6	-3							
LONDON ONT.	37.97	354.0	7	10A	0							
MANHATTEN	38.59	334.2	7	13	-2	13	5	1				
SANTA LUCIA	38.76	172.6	7	16K	-1	13	6	0			9	0 PPP
DUBUQUE	39.35	343.0	7	20	-1	13	56	41				
BREBEUF	40.23	2.8	7	29A	0	13	32	4	7	52	16	33 SS
ALBUQUERQUE	40.76	320.6	7	32	-1	14	0	24	7	56	8	49 PP
HALIFAX	40.80	13.7	7	34K	1							
SHAWINIGAN	41.32	3.5	7	39	1							
LARAMIE	44.56	328.2	8	5	1							
GLEN CANYON	45.28	319.2	8	30	20							
RAPID CITY	45.46	332.6	8	9	-2				8	34		
PRICE	46.38	322.7	8	18K	0							
FLAMING GRGE	46.39	325.0	8	19	0				8	41	13	37 SCP

SALT LAKE C.	47.73	323.2	8 29	0				8 57	13 45	SCP
DUGWAY	47.96	322.0	8 30K	-1						
PASADENA	48.41	312.1	8 34	0					13 51	PCP
EUREKA	49.54	319.4	8 43	0						
SCHEFFERVLLE	50.08	7.1	8 46A	-1						
BOZEMAN	50.45	328.7	8 51	1				9 14		
PRIEST	51.12	313.2	8 55A	0						
BUTTE	51.48	328.1	8 56	-2						
RENO	52.11	317.4	9 3A	1						
LICK	52.36	314.1	9 5K	1					9 31	
BERKELEY	53.03	314.5	9 10	1	17	6	36			
BLUE MTS.	53.38	324.3	9 10A	-2				9 33	14 6	SCP
CALISTOGA	53.60	315.2	9 12A	-1					9 38	
MINERAL	53.71	317.5	9 7A	-7					9 37	
HUNGRY HORSE	53.76	329.5	9 14	-1				9 39		
PONTA DELGDA	56.14	47.4	9 32	0						
BANFF	56.34	331.3	9 31	-2						
PENTICTON	57.26	327.6	9 40K	0						
M.BOUR	58.91	76.4	9 50A	-1				10 25		
VICTORIA	58.91	325.2	9 51	0						
COIMBRA	69.72	49.1	11 2A	1				11 27		
SERRA PILAR	69.76	48.1	11 2	0				11 30	11 26	PCP
SIDA	71.70	23.4	11 19K	6						
MALAGA	72.31	53.2	11 18A	1	20	36	5	11 42	13 58	PP
TOLEDO	72.98	50.0	11 21A	0	20	36	-3	11 49	14 2	PP
GRANADA	73.00	52.8	11 20A	-1					14 7	PP
ALMERIA	73.87	53.3	11 26A	0				11 52	14 23	PP
MOULD BAY	74.87	350.2	11 29A	-3				11 56		
JERSEY	75.69	40.6	11 11	-26	21	39	30			
FOLINIERE	76.69	41.2	11 42	0						
DURHAM	76.91	35.0	11 43K	0				12 25		
KFW	77.16	38.5	11 44A	-1	21	26	1			
ALERT	77.51	1.8	11 45	-2						
COLLEGE	77.59	335.5	11 45	-2				12 14		
PARIS	78.65	41.4	11 54K	1					12 53	
GARCHY	78.91	43.0	11 54A	0						
DOURBES	80.12	40.2	12 1	0	21	59	3			
KIPAPA	80.56	290.8	12 4	1						
HONOLULU	80.64	290.6			22	7	6		22 48	*SS
BESANCON	80.89	43.1	12 5	0					12 42	
BERGEN	81.30	29.8	12 7	0						
ISOLA	81.55	46.2	12 9	1						
BENSBERG	81.80	39.4	12 10A	0				12 36	12 47	*SP
MONACO	81.82	46.7	12 6	-4						
STRASBOURG	82.13	41.8	12 12	1	22	19	2		13 10	
FELDBERG	82.60	40.2	12 12	-2						
EBINGEN	82.93	42.2	12 16	0						
TUBINGEN	82.99	41.9	12 16	0						
STUTTGART	83.13	41.6	12 16	-1	22	23	-4			
CHUR	83.31	43.6	12 18	1	22	28	-1			
RAVENSBURG	83.36	42.6	12 17	-1						
KONGSBERG	83.44	30.7	12 19	1						
FLORENCE X.	84.59	46.6	12 30A	6	22	51	10	13 10	15 53	PP
JENA	84.59	39.4	12 25	1	22	39	-2	13 0	15 57	PP
GOTEBORG	84.67	32.6	12 22	-2						
SKALSTUGAN	84.71	26.7	12 24	0						
HALLE	84.81	38.9	12 26	1	22	41	-2			
PADOVA	84.97	45.0	12 24	-2	22	40	-5		23 32	
COPENHAGEN	84.98	34.6	12 26	0	22	41	-4			
COLLMBERG	85.48	39.0	12 30A	2					15 53	PP
ROME	85.57	48.5	12 31A	2	22	51	0	13 9	15 53	PP
KASPERSKE H.	85.96	41.2	12 31A	0					13 7	
AQUILA	86.23	48.0			22	45	-12		12 33	PCP
PRAGUE	86.45	40.2	12 35	2					15 59	PP
PR JHONICE	86.53	40.3	12 34A	1					15 55	PP
KARLSKRONA	86.72	34.1	12 33	-1				12 59		
LJUBLJANA	86.79	44.2	12 36A	1						
TROMSOE	86.96	20.4	12 36	0						
UPPSALA	87.47	30.3	12 37	-1	23	9	0	13 3	22 49	SKS
KIRUNA	87.74	22.2	12 40	1	23	8	-3	13 5	22 58	SKS
BYRD STATION	87.82	186.9	12 39	-1					16 7	PP
VIENNA-H.	87.87	41.9	12 40	0					13 43	
UMEA	88.22	26.2	12 42A	0	23	11	-5		24 9	
BRATISLAVA	88.36	42.0	12 43	1					13 8	
RACIBORZ	88.87	40.0	12 46	1						
KEVO	89.71	19.8	12 49	0	23	6	-24		13 12	
SODANKYLA	90.16	22.2	12 50	-1				13 16		
NURMIJARVI	90.84	29.1	12 54	0	23	12	-28	13 20		
HELSINKI	91.06	29.4	12 55	0						

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BELGRADE	91.07	45.0	12	56A	1	23	20	-22		22	6
KAJAANI	91.40	25.3	12	57	1					13	42
LWOW	92.63	39.7	13	3	1						
SOFIA	93.47	46.8	13	6	0					14	27
BANGUI	94.36	85.2	13	10	0	24	13	3			
ATHENS	94.60	51.4	13	9	-2	24	35	23			
SOUTH POLE	95.14	180.0	13	4	-10						
ISTANBUL UN.	97.95	47.5	17	25	239	23	54	0			
KSARA	105.16	53.1								17	35 PP
JERUSALEM	105.21	55.3								18	21 PP
WILKES	118.76	183.1								29	31 SP
SHIRAZ	119.85	51.6	18	40K	1					19	50
MATUSIRO	127.51	325.0	18	54	0						
BRISBANE	128.51	239.0								20	15
CANBERRA	128.75	228.0	18	57A	1						
QUETTA	130.16	42.9	19	0A	1					21	10 PP
TOOLANGI	130.22	223.8	19	0	1						
WARSAK DAM	130.51	35.7	18	59	-1						
RABAUL	131.83	269.0	19	2	0						
CHARTERS TS.	136.19	246.3	19	11	1					22	36
ADELAIDE	136.23	222.8	19	11	1						
DEHRA DUN	136.92	33.4	19	13	1						
POONA	142.20	50.7	19	18	-3					22	52
CHITTAGONG	150.21	22.8	19	42	8					23	11 PP
MUNDARING	150.93	202.0	19	36A	0						
LEMBANG	175.90	246.2	19	59A	1					25	33

SEPTEMBER 29 15.H 17.M 47.S EPICENTRE -27.06 -63.16 DEPTH= 563.KM

A= 0.40256 B=-0.79573 C=-0.45248 D=-0.8923 E=-0.4514
G=-0.2043 H= 0.4037 K=-0.8918 HT= 2.7

DEPTH OF FOCUS= 0.084R

SE= 2.18

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
COPIAPO	6.41	265.8	1	43	0	3	5	-1			2	9	
ANTOFAGASTA	7.36	295.4	1	51	-1	3	23	1					
LA PLATA	9.01	151.4	2	15	6	3	59	7					
SANTA LUCIA	9.07	223.7	2	7A	-2	3	51	-2			2	33	PPP
CONCEPCION	12.31	215.5	2	45	3	4	59	7					
HUANCAYO	18.80	320.2	3	46	1	6	47	1					
BOGOTA	33.21	339.9	5	52A	0						11	31	
FUQUENE	33.91	340.9	5	57	-1								
CHINCHINA	34.04	337.4	5	58A	-1	10	40	-7					
CARACAS	37.51	353.9	6	26K	-1	12	13	35					
TRINIDAD	37.52	2.8	6	28	1	11	26	-12					
BALBOA HTS.	39.18	333.8	6	40	-1								
GALERAZAMBA	39.41	341.1	6	42A	-1	12	4	-2					
FORT FRANCE	41.58	2.9	6	55	-5	12	32	-5					
ST. CLAUDE	42.85	2.1	7	10	0								
ST. KITTS	44.14	0.6	7	17	-3						8	52	
SAN JUAN	45.26	356.0	7	26	-3	13	18	-11	8	58	9	23	PCP
HOPE	46.69	342.1									8	36	
SAN SALVADOR	47.74	324.8	7	51	3	14	4	1					
MERIDA	54.17	329.1									14	21	
OAXACA	54.62	319.5				15	59	24					
BYRD STATION	57.88	189.9	8	59	-1	16	24	7	10	47			
TACUBAYA	57.91	319.0	8	44	-16						16	2	
BERMUDA	59.13	358.5	8	43	-25						11	48	PP
M.BOUR	60.89	53.2	9	17K	-3				11	12			
SOUTH POLE	63.10	180.0	8	33	-61	17	18	-4					
CHAPEL HILL	64.41	345.7	9	42	-1						17	38	
WASHINGTON	66.89	348.2	9	54	-4								
DALLAS	67.61	329.7	10	2	0								
MORGANTOWN	68.17	346.1	10	5	-1	18	24	2					
FORDHAM	68.29	351.3	10	6	0	18	19	-4					
PALISADES	68.45	351.3	10	7K	0	18	26	1			19	8	SKS
FAYETTEVILLE	69.29	333.5	10	10K	-2	18	36	1					
HERMANUS	69.38	118.9				18	38	2			18	59	SKS
BLOOMINGTON	69.42	340.8	10	11K	-2				12	7			
TULSA	69.79	332.2	10	15	0	18	41	1	12	11	13	9	*SP
WICHITA MTS.	70.00	329.5	10	15K	-2	18	40	-3	12	13	13	8	PP
ST. LOUIS 1	70.09	337.7	10	15K	-2	18	37	-7					
CLEVELAND	70.28	345.4	10	17K	-1	18	44	-2					

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FLORISSANT	70.28	337.7	10	16K	-2	18	39	-7					
LUBBOCK	70.61	326.4	10	19	-1						12	20	
SCOTT BASE	71.30	189.9	10	23	-1								
HALIFAX	71.33	359.7	10	25K	1								
RANDFIRA	71.50	97.6	10	27K	2	19	1	1	12	26	13	19	PP
LONDON ONT.	71.70	346.2	10	25K	-2								
WINDHOEK	71.82	106.5	10	27A	0								
LAWRENCE	72.21	334.2	10	27	-2								
CHICAGO USA.	72.25	341.0	10	28	-2								
BREBEUF	72.84	352.3	10	32K	-1	19	17	3	12	33	13	25	PP
MANHATTEN	72.93	333.4	10	31K	-3	19	7	-8					
DUBUQUE	73.73	339.2	10	37K	-1	19	21	-3					
SHAWINIGAN	73.78	353.1	10	38K	0								
LUANDA	73.95	91.9	10	40K	1				12	43			
ALBUQUERQUE	74.03	324.1	10	39	-1	19	23	-4	12	39	16	21	
CAPE HALLETT	74.44	194.8	10	41	-1								
KIMBERLEY	75.84	115.2	10	50K	0								
GOLDEN	77.19	327.9	10	57	0	20	4	3					
MAWSON	77.48	161.5	10	57K	-2	20	1	-3	12	57	23	33	*SS
GLEN CANYON	78.29	322.3	10	44	-19								
LARAMIE	78.56	328.8	11	5	1						20	16	
BOULDER CITY	79.40	319.7				20	26	2					
PRICE	79.82	324.5	11	18K	7								
FLAMING GRGE	80.09	326.3	11	13	1	20	14	-17	13	18			
PASADENA	80.14	316.4	11	12	-1	20	33	2	13	15	14	23	*SP
SALT LAKE C.	81.21	324.7	11	18	0	20	46	4	13	21			
DUGWAY	81.29	323.8	11	18K	-1								
SCHEFFERVLLE	81.60	357.9	11	19K	-1								
EUREKA	82.49	321.5	11	25	0	20	54	-1					
BULAWAYO	82.59	108.7	11	25K	0								
LISBON	82.64	39.7	11	24K	-1	20	56	0					
PRIEST	82.98	316.5	11	27K	0						13	31	
COIMBRA	84.06	39.0	11	33K	1				13	38			
MALAGA	84.13	43.7	11	43K	10	21	13	2	13	38	14	31	PP
LICK	84.36	316.9	11	34K	0						13	38	
BOZEMAN	84.45	328.5	11	34	0	21	16	2	13	39			
SERRA PILAR	84.60	38.2	11	35A	0						15	5	PP
BANGUI	84.68	82.4	11	35	0	21	8	-8					
RENO	84.71	319.6	11	31K	-5						13	41	
DUMONT	84.92	189.1	11	34	-3	21	5	-13					
GRANADA	84.92	43.7	11	40K	3	22	19	61			14	39	PP
MIRNY	84.94	170.7	11	35	-2	21	21	3			27	7	SS
BROKEN HILL	84.98	103.6	11	39K	2								
BERKELEY	85.07	317.0	11	37K	0						13	42	
ALMERIA	85.41	44.6	11	38K	-1	21	23	0	13	43	15	7	PP
BUTTE	85.42	327.9	11	39	0	21	23	0	13	44	15	11	PP
CALISTOGA	85.76	317.5	11	40K	-1						13	45	
MINERAL	86.28	319.3	11	42A	-1						13	47	
TOLEDO	86.37	41.4	11	44K	0	21	33	1	13	49	15	29	PP
WILKES	86.77	177.5	11	45K	0	21	18	-17	13	47	21	41	SP
BLUE MTS.	86.93	324.7	11	45K	-1	21	39	2	13	51	37	36	PKPPKP
ALICANTE	87.58	44.4	11	49	0				14	3	12	52	
HUNGRY HORSE	87.80	328.8	11	51	1				13	56			
BANFF	90.50	330.1	12	0K	-3								
LONGMIRE	90.54	324.0	12	0K	-3								
LWIRO	90.74	92.9	12	6	2								
BAGNERES	90.82	40.9	12	5	1						14	17	
MACQUARIE I.	91.05	203.0							14	11			
PENTICTON	91.13	326.9	12	5	-1								
VICTORIA	92.51	324.7	12	11	-1								
WELLINGTON	93.41	219.8				21	55	-39	14	18	23	51	SP
ROXBURGH	93.47	214.0				21	53	-41			23	53	SP
FOLINIERE	93.93	36.1	12	18	-1								
CHATEAU	94.31	221.7	12	20	0	22	2	-39	14	22	29	19	PKKP
GARCHY	94.97	38.7	12	23K	0				14	29	15	47	PP
TARATA	95.00	221.2	12	24	1				14	26			
KARAPIRO	95.13	222.7	12	23	-1				14	27	29	16	PKKP
MONACO	95.56	43.4	12	26	0								
ISOLA	95.57	42.9	12	27	1								
KEW	95.65	34.0	12	25	-1						25	52	PS
REYKJAVIK	96.46	16.9	12	30A	0								
BESANCON	96.60	39.9	12	30	-1								
CHIAVARI	97.03	43.6	12	18	-15	21	57	-19			16	43	PP
DURHAM	97.06	30.9	12	35	2	23	9	53					
DOURBES	97.40	36.9	12	33	-1								
ROME	97.82	46.9	12	37	1	22	29	16	14	41	27	9	*SS
FLORENCE X.	97.96	44.8	12	37	0	22	29	9			18	27	
MESSINA	98.11	51.3	12	28	-9	22	19	-2			16	51	PP

STRASBOURG	98.23	39.4	12	41	3					16	43 PP
AQUILA	98.63	46.8	12	41	1	22	23	-1		16	43 PP
EBINGEN	98.81	40.1	12	42	1						
PADOVA	99.15	43.6				22	28	2		16	43 PP
RENSBERG	99.25	37.1	12	42A	-1					16	53 PP
STUTTGART	99.28	39.7	12	45	2	22	34	7	14 55	16	53 PP
HEIDELBERG	99.29	39.0	12	42	-1						
FELDBERG	99.56	38.2	12	39	-5						
AFIAMALU	99.69	249.0								25	6
WITTEVEEN	99.96	35.3	12	46	0						
TRIESTE	100.42	44.0	12	49	1	22	35	3		17	4 PP
LJUBLJANA	101.08	43.9	12	51	0	22	41	6		17	6 PP
JENA	101.65	38.6	12	53	0	22	43	5	15 0	17	8 PP
ZAGREB	101.89	44.6								16	50 PP
KASPERSKF H.	101.94	40.8	12	54R	0					17	10 PP
HALLE	102.12	38.2	12	56	1					17	13 PP
COLLMBERG	102.61	38.7	12	59A	2					21	28
PRAGUE	102.86	40.2				22	51	7		17	19
PRUHONICE	102.89	40.3	13	0K	1	22	49	5		26	41 PS
VIENNA-H.	103.20	42.5	13	1	1					17	20 PP
ATHENS	103.82	54.4	13	4K	1					17	29 PP
BELGRADE	104.32	46.9								17	32 PP
BUDAPEST	104.49	44.0	17	18	.252				18 12	26	47 *SS
KONGSBERG	104.82	30.1	17	17	250						
SOFIA	105.40	49.7	15	55	777					16	41 PP
KARLSKRONA	106.13	34.8	17	25	777						
SKALSTUGAN	107.72	27.0	17	26	777					28	38 PKKP
UPPSALA	108.58	31.7	17	26	777					28	48 PKKP
MOULD BAY	108.69	347.9	17	26	777						
ISTANBUL UN.	108.74	53.0	13	26	777					16	27 SP
ALERT	109.33	0.1	13	26	777					17	26 PKP
JERUSALEM	110.36	64.0	17	29	1						
KISHINEV	110.56	46.9								18	15 PP
CANBERRA	110.91	207.8	17	27	-2					28	29 PKKP
NORD	110.93	6.6	17	29	0						
UMEA	111.11	28.2	17	29	0	23	19	0		18	13 PP
RIVERVIEW	111.25	210.2				23	21	2		18	5 PP
KSARA	111.55	62.1	13	40	-230					18	21 PP
COLLEGE	111.94	332.7	13	39	-232					17	30 PKP
NURMIJARVI	112.11	32.3	17	31	0	23	21	-2		18	26 PP
HELSINKI	112.17	32.7	17	31	0					26	23 PKKP
KIRUNA	112.39	24.1	17	32	0	23	26	2		18	27 PP
TROMSOE	112.39	22.0	17	32	0						
SIMFEROPOL	113.51	50.2	17	36	2					18	38 PP
KAJAANI	114.36	28.8	17	35	-1					18	44 PP
SODANKYLA	114.58	25.2	17	35	-1					18	42 PP
PULKOVO	114.69	33.8	17	36	0					18	44 PP
ADELAIDE	114.93	199.7	17	38	1					28	16 PKKP
KEVO	115.16	22.6	17	37	0	23	37	3		18	35 PP
BRISBANE	115.78	215.4	17	39	1	23	16	-21			
APATITY	117.20	25.4	17	41K	0					22	59 PPP
MOSCOW	117.88	38.9	17	41	-1					19	1 PP
TIFLIS	120.39	55.6	17	48	1					19	23 PP
GORIS	121.13	58.4								21	24 PKS
SHIRAZ	124.00	71.1	17	55K	1	24	6	2	19 49	20	38 *SP
TEHERAN	124.37	63.7	17	56	1					19	44 PP
CHARTERS TS.	125.14	214.4	17	57	0					19	53
ASHKABAD	130.21	61.9	18	7	1	24	27	6		20	31 PP
PORT MORESBY	133.33	223.2	18	11	-1					20	23 PP
RABAUL	133.84	233.1	18	15	2						
TIKSI	134.88	354.6								20	50 PP
KARACHI	135.40	81.2	18	19	3						
QUETTA	136.37	73.7	18	8	-10					20	38 PP
DARWIN	138.51	200.9	18	15	-7					20	56
BOMBAY	138.84	91.8	18	24	2					22	27
POONA	139.63	92.9	18	17	-7					20	27
WARSAK DAM	140.63	68.6	18	20	-6						
LAHORE	142.83	72.7	18	28	-2						
MADRAS	142.98	104.9	18	30	0					37	11
SEHORE	143.90	87.2	18	32	0						
YAKUTSK	144.00	349.7	18	32	0					21	54 PP
NEW DELHI	145.02	78.1	18	34K	0						
LEMBANG	145.15	163.8	18	34K	0					21	15
DEHRA DUN	145.93	75.2	18	38	3						
VISHAKHAPTNM	147.71	99.7	18	43K	6					20	55
Y.-SAKHLINSK	151.51	321.2	18	43	0						
BOKARO	151.83	89.6	18	48	4					24	54
IRKUTSK	153.12	17.1	18	48	3					22	44 PP

CHATRA	153.58	83.7	18	49K	3							
CALCUTTA	153.80	93.6	17	39	-67							
ESEN BULAK	154.74	34.8	18	49	1							
CHITTAGONG	156.81	96.2	18	54	4				21	6	23	8 PP
LHASA	157.17	77.5	18	54	3						21	9 PP
SHILLONG	157.58	88.2	18	52K	1							
ULAN-BATOR	157.77	17.9	18	53	1							
TUKUBASAN	158.23	300.5	18	53K	1	25	13	10			23	32 PP
MATUSIRO	159.56	302.8	18	54A	0						23	22 PP
VLADIVOSTOK	159.84	326.5	18	53	-1							
CHANGCHUN	161.92	339.9	18	57	1				21	9	23	30 PP
NHATRANG	163.59	152.7	18	59	1							
PAOTOW	165.38	21.0	19	0K	0				21	15	23	49 PP
LANCHOW	165.75	47.8	19	2K	2				21	18	23	51 PP
PEKING	167.05	2.3	19	2K	1				21	18	23	59 PP
KUNMING	167.18	95.5	19	3K	2				21	19	24	4 PP
CHENGTU	168.20	69.3	19	3K	2				21	19	24	7 PP
SIAN	170.11	41.6	19	5	3				21	21	24	16 PP
ZO-SE	174.46	317.7	19	6	4				21	21	24	35 PP
HONG KONG	174.68	152.3	19	5	1						45	13 SS
NANKING	174.74	341.7	19	6	2				21	21	24	36 PP

SEPTEMBER 30 10.H 48.M 13.S EPICENTRE -5.01 152.56 DEPTH= 49.KM

A=-0.88415 B= 0.45907 C=-0.08679 D= 0.4608 E= 0.8875
G= 0.0770 H=-0.0400 K=-0.9962 HT= 7.0

DEPTH OF FOCUS= 0.003R

SE= 2.63

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
RABAUL	0.90	334.2	0	19K	2							
PORT MORESBY	6.91	230.6	1	40A	-1	2	57	-2				
HONIARA	8.54	121.3	1	59	-5							
CHARTERS TS.	16.19	201.7	3	43	-3	6	49	6				
KOUMAC	19.20	144.6	4	22K	0	8	2	11				
NOUMEA	21.82	143.3	5	0K	10	8	52	9				
BRISBANE	22.25	179.5	4	52	-2	8	57	6				
DARWIN	22.68	249.8	5	1	3							
RIVERVIEW	28.70	182.4	5	41A	-14	10	42	3				
CANBERRA	30.34	185.8	6	8	-1							
ADELAIDE	32.44	201.5	6	25	-3							
TOOLANGI	33.04	190.3	6	41	8							
TARRALEAH	37.52	187.4	7	16	5							
KARAPIRO	38.89	150.5	7	22	0						9	33 PCP
WELLINGTON	41.22	154.4	7	48	6	13	49	-3			17	11 SS
MUNDARING	43.31	227.3	7	57	-2							
MATUSIRO	43.46	343.1	7	57	-3	14	27	3				
LEMBANG	44.73	265.4	8	7	-3						18	30
ZO-SE	46.77	322.2	8	27	1							
NANKING	48.91	321.2	8	44A	1							
CHANGCHUN	54.47	336.0	9	24	-1							
KIPAPA	55.09	59.7	9	29	0							
PEKING	55.93	326.6	9	35	0							
SIAN	56.73	316.9	9	41A	0							
KUNMING	56.91	304.2	9	44A	2							
CHENGTU	58.38	310.7	9	52A	-1							
PAOTOW	59.81	323.4	10	3	0							
LANCHOW	61.21	316.0	10	13A	1							
SHILLONG	66.22	300.6	10	46A	1							
WILKES	67.79	197.0	10	54	-1							
SCOTT BASE	73.18	176.9	11	25	-2							
DEHRA DUN	79.25	302.0	11	3	-59							
POONA	80.93	289.6	12	10A	-1							
COLLEGE	82.14	21.8	12	15	-2							
LAHORE	82.63	302.6	12	19A	0							
BYRD STATION	84.73	169.9									12	30 PP
WARSAK DAM	85.35	304.6	12	33	0							
QUETTA	88.70	300.3	12	49A	0							
MINERAL	90.04	49.7	12	58	2							
PASADENA	92.18	56.1	13	6	0							
PENTICTON	92.34	40.9	13	7	1							
BLUE MTS.	93.59	45.5	13	12	0						13	57
EUREKA	94.29	50.9	13	15	0							
MOULD BAY	94.38	13.9	13	15A	-1							

HUNGRY HORSE	95.98	42.0	13 23	0	
BOZEMAN	98.03	44.7	13 33	1	
SHIRAZ	101.18	299.1	13 45A	-1	17 54
SODANKYLA	107.83	340.8	14 15	777	
WICHITA MTS.	108.32	55.2	18 36	777	18 59
KAJAANI	109.16	337.6	14 21	777	
UMEA	112.04	339.3	18 31	1	
NURMIJARVI	112.22	335.1	18 31	1	
BRATISLAVA	122.67	326.1	18 52	2	
COLLMBERG	122.93	331.0	18 52	1	
PRUHONICE	122.98	329.0	18 52	1	
VIENNA-H.	123.03	326.5	18 53	2	
KASPERSKE H.	124.00	328.7	18 53	0	19 15
LJUBLJANA	125.33	325.2	18 57A	1	
BENSBERG	125.86	333.7	18 58	1	
STUTTGART	126.40	330.6	18 59	1	
DOURBES	127.61	334.5	19 2	2	
CHINCHINA	132.01	87.8	19 10	2	22 38 PKS
BOGOTA	133.54	88.4	19 16	5	22 44 PKS
BANGUI	134.10	271.2	19 14	2	22 42 SKP
TRINIDAD	145.91	78.5	19 36K	3	

SEPTEMBER 30 21.H 57.M 23.S EPICENTRE 18.58 120.99 DEPTH= 34.KM

A=-0.48841 B= 0.81310 C= 0.31673 D= 0.8572 E= 0.5149
G=-0.1631 H= 0.2715 K=-0.9485 HT= 5.0

DEPTH OF FOCUS= 0.000R

SE= 2.00

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
MANILA	3.89	178.7	1	3	4	1	48	4					
HONG KONG	7.39	301.2	1	45	-3								
CANTON	8.44	303.4	2	0K	-3								
ZO-SE	12.47	0.7	3	2	4	5	24	8					
NHATRANG	13.00	242.6	3	4	-1								
NANKING	13.57	352.0	3	13A	1	5	49	6			3	30	*SP
KUNMING	18.14	294.2	4	13K	2	7	34	5			4	29	*SP
SIAN	18.96	327.8	4	22K	1	7	57	10			4	37	*SP
CHENGTU	19.54	311.2	4	27K	0	8	4	4					
ABUYAMA	20.76	35.7	4	41A	1								
PEKING	21.78	350.0	4	51	0	8	48	4					
LANCHOW	23.07	322.4	5	6K	3	9	16	8			5	20	*SP
MATUSIRO	23.45	36.8	5	6A	-1	9	18	3					
PAOTOW	23.87	339.0	5	9	-2	9	28	6			5	26	*SP
CHANGCHUN	25.43	7.3	5	25A	-1	9	46	-2			5	42	*SP
VLADIVOSTOK	26.14	18.3	5	32	-1								
CHITTAGONG	27.57	282.8	5	49	3								
SHILLONG	27.83	289.7	5	47K	-1	10	23	-4					
CALCUTTA	30.76	283.0									7	18	
ULAN-BATOR	31.44	341.7	6	21	1	11	20	-5					
DARWIN	32.26	161.8	6	27	-1								
Y.-SAKHLINSK	33.50	27.3	6	38	0								
ESEN BULAK	34.43	329.2	6	47	1						14	55	
IRKUTSK	36.07	342.6	7	1	1	12	39	2					
PORT MORESBY	37.94	135.0	7	17	1								
RABAUL	38.16	123.3				13	11	2			17	48	
MADRAS	39.60	268.1	7	44	14						9	24	
DEHRA DUN	40.58	295.1	7	40	2	13	44	-1					
NEW DELHI	41.16	292.4	7	40K	-3								
YAKUTSK	43.82	5.9	8	3A	-2								
LAHORE	43.89	296.4	8	4	-1								
ALMATA-2	44.12	313.6	8	10	3								
BOMBAY	45.50	278.5	8	29	11	14	52	-5			10	6	PP
CHARTERS TS.	45.73	145.9	8	20	0						15	1	
WARSAK DAM	46.48	299.5	8	27K	1								
DUZHANBE	49.30	305.2	8	48	0	15	55	5					
TASHKENT	49.38	308.8	8	51	3	15	53	1					
QUETTA	50.16	294.1	8	55	1								
MUNDARING	50.47	185.3	8	55A	-2								
BRISBANE	55.11	145.2	9	31	0						10	35	
ADELAIDE	55.86	162.4	9	36K	-1				9	50			
ASHKABAD	57.41	303.6	9	48	0	17	45	5					
VANNOVSKAYA	57.61	303.6	9	49	0								
SVERDLOVSK	58.50	325.9	9	54K	-1								

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RIVERVIEW	59.52	151.0	10	0A	-2					
CANBERRA	59.83	153.6	10	4	-1				10 48	PCP
TOOLANGI	60.43	157.7	10	9A	0			10 25		
SHIRAZ	62.69	294.3	10	23A	-1	18 45	-3	10 36	39 26	PKPPKP
GORIS	66.75	305.7	10	50K	0	19 42	4			
TIFLIS	67.70	308.2	10	58	2					
MOSCOW	71.14	323.6	11	15	-2					
APATITY	72.07	336.2	11	22K	-1	20 39	-2		11 47	
COLLEGE	73.86	26.4	11	32	-1					
KEVO	74.10	338.8	11	34	-1					
PULKOVO	74.48	328.3	11	36A	-1					
SODANKYLA	74.68	336.4	11	37K	-1					
KAJAANI	74.89	333.0	11	39	0					
SIMFEROPOL	74.94	312.8	11	39A	0	21 12	-1			
KIPAPA	75.32	72.0	11	43	1					
KSARA	75.95	301.2	11	50	5					
KARAPIRO	76.04	138.4	11	47	1					
CHATEAU	76.81	139.5	11	51	1					
TROMSOE	76.86	339.4	11	51	1					
KIRUNA	76.88	337.5	11	49	-1					
JERUSALEM	76.96	299.3	11	52K	1					
HELSINKI	77.02	329.3	11	50	-1					
NURMIJARVI	77.09	329.7	11	51K	-1					
TUAI	77.58	138.4	11	55	1					
UMEA	78.15	333.6	11	56A	-1	21 45	-3			
HAWAII V.OB.	78.32	73.3	12	0	2					
MOULD BAY	78.75	12.3	11	59A	-2					
ALERT	79.09	0.5	12	3	0					
ISTANBUL UN.	79.51	309.8	12	0A	-5				22 6	
LWOW	80.40	319.3	12	9	-1					
UPPSALA	80.63	330.1	12	10A	-1					
TANANARIVE	81.15	246.7	12	16	2					
SKALSTUGAN	81.54	334.6	12	16	0					
UZHGOROD	81.84	318.5	12	17	0					
KARLSKRONA	83.02	327.1	12	24	1					
SOFIA	83.06	312.6	12	22	-1					
BUDAPEST	84.30	318.2	12	26	-4					
KONGSBERG	84.41	331.6	12	29	-1					
WILKES	85.03	184.2	12	34	1			12 48		
BRATISLAVA	85.25	319.3	12	32	-2				13 10	
VIENNA-H.	85.67	319.6	12	37	0					
PRUHONICE	86.07	321.6	12	39	1					
PRAGUE	86.10	321.8	12	39	0					
DUMONT	86.18	172.5	12	38	-1					
COLLMBERG	86.41	323.3	12	40	0				16 1	
HALLE	86.92	323.7	12	42	-1					
KASPERSKE H.	87.00	321.1	12	43	0				13 10	
JENA	87.38	323.3	12	44	-1					
LJUBLJANA	87.71	318.1	12	46A	0				13 33	
STUTTGART	89.69	322.1	12	57	1					
DOURBES	91.67	324.8	13	5	0					
VICTORIA	92.05	36.9	13	9	2					
PENTICTON	93.73	34.8	13	16A	1					
BLUE MTS.	97.58	37.6	13	33	1					
EUREKA	101.52	41.5	13	53	3				17 56	PKP
SALT LAKE C.	103.24	38.5							31 11	PKKP
SOUTH POLE	108.47	180.0							19 9	
WICHITA MTS.	115.00	35.4	18	39	1				29 21	PKKP
ST. CLAUDE	145.51	4.6							19 13	
FORT FRANCE	146.83	3.8	19	40	3					
CARACAS	150.07	15.8	19	46K	4					
TRINIDAD	150.86	4.8	19	47	4					
CHINCHINA	151.44	36.6	19	45	1				19 50	PKP2
FUQUENE	152.04	32.7	19	50	5					
BOGOTA	152.58	34.2	19	49	3				19 57	PKP2
HUANCAYO	162.98	69.9	20	5	7					

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The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained as part of a global earthquake relocation project (Villaseñor et al., 1997) initiated with funding from the US National Science Foundation through grant EAR-9725140 and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of Euroseismos project.

A digital hypocenter file of the ISS (Villaseñor and Engdahl, 2005) can be obtained from the USGS web site: http://earthquake.usgs.gov/scitech/iss/

Villaseñor, A., and E.R. Engdahl, *A digital hypocenter catalog for the International Seismological Summary,* Seism. Res. Lett., vol. 76, no. 5, pp. 554-559, 2005.

Villaseñor, A., E.A. Bergman, T.M. Boyd, E.R. Engdahl, D.W. Frazier, M.M. Harden, J.L. Orth, R.L. Parkes, and K.M. Shedlock*, Toward a comprehensive catalog of global historical seismicity,* Eos Trans. AGU, vol. 78, no. 50, pp. 581, 583, 588, 1997.